

# What's in a Meal?

A Resource Manual for Providing Nutritious Meals
in the Child and Adult Care Food Program


United States Department of Agriculture
Food and Nutrition Service
Midwest Region
Child Nutrition Programs
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# Introduction

The United States Department of Agriculture Food and Nutrition Service convened a task force to prepare this manual which is intended to assist Child and Adult Care Food Program (CACFP) personnel in providing quality, nutritious meals which comply with CACFP meal pattern requirements. The task force was made up of local family day care providers, child care center directors, sponsoring organization directors and nutritionists, State Department of Education technical staff and USDA Food and Nutrition Service specialists.

This manual contains sections on nutrition, recipe modification, food labeling, feeding infants, food handling and sanitation, ethnic foods, recipe evaluation and crediting foods.

USDA commends all task force members for contributing their time and energy beyond regular duties to make this a successful guide. For additional information on or clarification of the topics covered in this manual, please contact your sponsoring organization or State agency.

We are interested in your response to this publication. After reading it, will you please take a few minutes to complete the questionnaire on the last page?

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# Grasping Nutrition Concepts

## Following the *Dietary Guidelines*

The *Dietary Guidelines for Americans*, developed by the United States Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS), provide general diet and lifestyle recommendations for healthy Americans ages two years and over. Try to follow these guidelines when planning menus for the children in your care and when making food choices for yourself.

- **Eat a variety of foods** to get the energy, protein, vitamins, minerals and fiber you need for good health.
- **Maintain a healthy weight** to reduce chances of having high blood pressure, heart disease, a stroke, certain cancers or the most common form of diabetes.
- **Choose a diet low in fat, saturated fat and cholesterol** to reduce risk of heart attack and certain types of cancer. A diet low in fat can also help you maintain a healthy weight.
- **Choose a diet with plenty of vegetables, fruits and grain products** to provide needed vitamins, minerals, fiber and complex carbohydrates. This can help lower fat intake.
- **Use sugars only in moderation.** A diet high in sugar can have too many calories and too few nutrients for most people.
- **Use salt and sodium only in moderation** to help reduce risk of high blood pressure.
- **If you drink alcoholic beverages, do so in moderation.**

## Key Elements of the *Dietary Guidelines*

Healthy diets include a variety of nutritious foods from all food groups. It is important to remember that no single food can supply all necessary nutrients. All foods can be part of a healthy diet.

When planning meals, moderation is always the key. Eating too much or too little of any one food or nutrient can be unhealthy.

Good health depends on a number of factors including: diet, heredity, lifestyle, health care and the environment.

# Using the Food Guide Pyramid

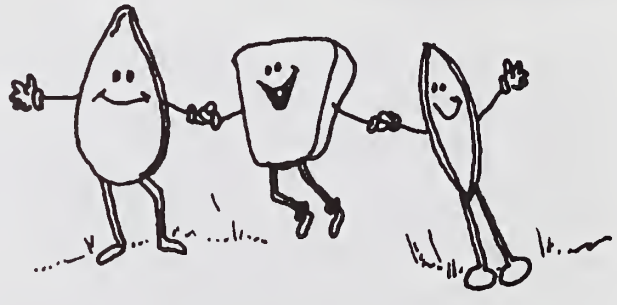
The **Food Guide Pyramid**, shown on the next page, is a graphic illustration of the *Dietary Guidelines*. The Food Guide Pyramid helps you choose what and how much to eat from each food group to get necessary nutrients and not too many calories, too much fat, saturated fat, cholesterol, sugar, sodium or alcohol. The food groups include: (1) the bread, cereal, rice and pasta group, (2) the vegetable group, (3) the fruit group, (4) the milk, yogurt and cheese group and (5) the meat, poultry, fish, dry beans, eggs and nuts group.

The bottom of the pyramid emphasizes the consumption of bread, cereals, rice, pasta, vegetables and fruits. The *Dietary Guidelines* recommend moderate intakes of foods that contain fat, saturated fat and cholesterol. Finally, the smallest triangle at the top shows that fats, oils and sweets should be used sparingly because they provide calories and little else nutritionally.

The Food Guide Pyramid recommends the number of servings of foods that should be eaten daily. Preschool children need the same variety of foods as older family members do, but may need fewer calories. For fewer calories, they can eat smaller servings. No specific number of servings is recommended for fats, oils and sweets at the top of the pyramid.

Also, throughout the Pyramid, tiny circles symbolize naturally occurring and added fat. Tiny triangles symbolize sugar added to foods in processing or at the table. These symbols show that many foods contribute fat and sugar to the diet.

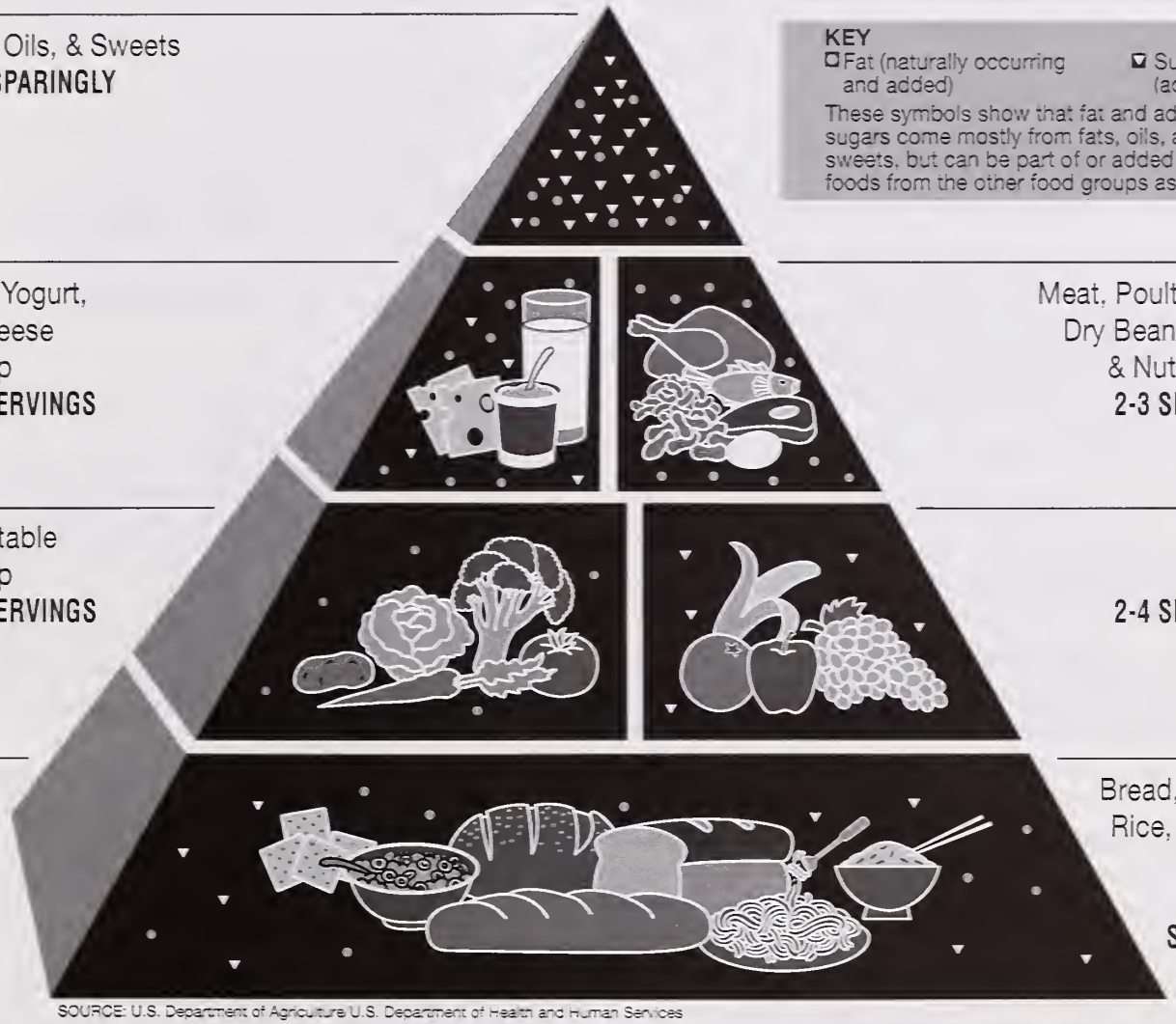
Each of the food groups of the Food Guide Pyramid provides important nutrients. Because one food group cannot provide all necessary nutrients, it is important to choose foods daily from all food groups.



| Food Group | Good Source Of |
|---|---|
| Bread, Cereal, Rice and Pasta Group | complex carbohydrate, fiber, riboflavin, niacin, thiamin, folate, iron |
| Vegetable Group | complex carbohydrate, fiber, vitamin A, vitamin C, folate, potassium, iron, magnesium |
| Fruit Group | carbohydrate, fiber, potassium, folate, vitamin A, vitamin C |
| Meat, Poultry, Fish, Dry Beans, Eggs and Nuts Group | protein, iron, phosphorus, potassium (meat, poultry, fish and eggs may contain saturated fat and cholesterol) |
| Milk, Yogurt and Cheese Group | protein, calcium, phosphorus, vitamin A, vitamin B-12 (most contain fat, saturated fat and cholesterol) |

# Food Guide Pyramid

## A Guide to Daily Food Choices




SOURCE: U.S. Department of Agriculture/U.S. Department of Health and Human Services

Use the Food Guide Pyramid to help you eat better every day. . .the Dietary Guidelines way. Start with plenty of Breads, Cereals, Rice, and Pasta; Vegetables; and Fruits. Add two to three servings from the Milk group and two to three servings from the Meat group.

Each of these food groups provides some, but not all, of the nutrients you need. No one food group is more important than another — for good health you need them all. Go easy on fats, oils, and sweets, the foods in the small tip of the Pyramid.

To order a copy of "The Food Guide Pyramid" booklet, send a $1.00 check or money order made out to the Superintendent of Documents to: Consumer Information Center, Department 159-Y, Pueblo, Colorado 81009.

U.S. Department of Agriculture, Human Nutrition Information Service, August 1992, Leaflet No. 572

# Understanding Nutrition

Many different nutrients are needed for good health. These include **carbohydrate**, **fat**, **protein**, **vitamins**, **minerals** and **water**. Most foods contain more than one nutrient.

The amount of energy that can be provided by a food is measured in calories. Carbohydrate, fat and protein provide calories to the body. If a person does not eat enough calories, the body uses protein and fat stores for energy. The number of calories from a food depends on how much protein, carbohydrate and fat are present.

Descriptions of the six nutrients follow.

## Carbohydrate

Foods supply carbohydrate in three forms: **sugars**, **starches** and **fiber**. One gram of carbohydrate provides four calories.

**Sugars** contribute calories but few vitamins and minerals. There are many different types of sugars. They include: brown sugar, cane sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high fructose corn syrup, honey, invert sugar, lactose, malt syrup, maltose, maple syrup, molasses, sucrose and sugar syrup.

Fruit and fruit juices contain natural sugars. Also, many sugars are used in processed foods. Refer to "Understanding Food Labels: What's in a Food?" for information on the use of sugars in processed foods.

**Starch** is a major source of energy. Good sources of starch are: grains (wheat, oats, corn, rice, etc.) and products made from grains such as flour, pasta, breads and cereals. Vegetables such as potatoes, sweet potatoes, dry beans and dry peas are also good sources of starch.

**Dietary fiber** is from plant foods. It resists being broken down during digestion. Dietary fiber provides bulk to the diet. The two types of dietary fiber are insoluble fiber and soluble fiber.

Insoluble fiber promotes normal elimination of wastes by providing bulk for stool formation. This prevents constipation. Insoluble fiber also helps satisfy appetite by creating a full feeling. Fruits, vegetables, brown rice, whole grains, seeds and legumes are good sources of insoluble fiber.

Soluble fiber plays a role in reducing blood cholesterol. Fruits, vegetables, legumes, oats and barley contain soluble fiber.

See "Modifying Recipes and Menus to Meet the *Dietary Guidelines for Americans*" for tips on increasing fiber.

## Fat

Fat, the most concentrated energy source in the diet, provides nine calories of energy per gram. This is more than twice as many calories per gram as provided by protein or carbohydrate.

Fats are made of fatty acids. Fatty acids are required for brain development, vision and the formation of some hormones. Food fats contain saturated, monounsaturated and polyunsaturated fatty acids. Fatty acids are carriers of the fat-soluble vitamins (vitamins A, D, E and K).

The *Dietary Guidelines for Americans* recommend that **30% or less of a diet's calories come from fat** and that **less than 10% of total calories come from saturated fat.**

To calculate the number of grams of fat that is equivalent to 30% of calories from fat, divide the total calories by 30.

**Saturated fatty acids** are present in all fats, but animal fats contain more. A diet low in fat, and especially saturated fat, helps reduce risk of heart attack and certain types of cancer. Partially hydrogenated vegetable oils, such as shortening and margarine contain saturated and trans fatty acids which act like saturated fatty acids.

*HINT: The Dietary Guidelines recommend that 30% or less of a diet's calories come from fat and less than 10% of total calories come from saturated fat.*

**Unsaturated fats** are liquid at room temperature. Using monounsaturated and polyunsaturated fats in place of saturated fats can help keep blood cholesterol levels down. Fats of both animal and plant origin contain monounsaturated fatty acids. Olive, canola and peanut oil contain large amounts of monounsaturated fatty acids. Polyunsaturated fats are found in fats of plant origin such as sunflower, corn, soybean, cottonseed and safflower oils.

**Cholesterol** is a fat-like substance found in humans and animals. It is needed to form hormones, cell membranes and other body substances. High blood cholesterol levels increase the risk of heart disease. The consumption of foods with saturated fat and cholesterol may affect cholesterol levels. Dietary cholesterol is found only in foods of animal origin such as meat, milk, cheese and eggs. Some foods that contain fat, saturated fat and cholesterol also contain high-quality protein and are good sources of certain vitamins and minerals.

| Total Daily Calories | Fat (at 30% of calories) | Saturated Fat (less than 10% of calories) |
|---|---|---|
| 1000 calories | 33 grams | < 11 grams |
| 1500 calories | 50 grams | < 16 grams |
| 2000 calories | 66 grams | < 22 grams |
| 2500 calories | 83 grams | < 27 grams |

Most varieties of lean meat, poultry and fish contain similar amounts of cholesterol per serving. However, organ meats such as liver, heart and kidney contain more cholesterol.

For information on fat content in foods, see "Understanding Food Labels: What's in a Food?" Also, for information on reducing fat in recipes or menus, see "Modifying Recipes and Menus to Meet the *Dietary Guidelines for Americans.*"

## Protein

Proteins are made of amino acids and are needed for growth, maintenance and replacement of body tissues. They also form the hormones and enzymes used to regulate body processes. Each gram of protein provides four calories of energy. Excess protein may be used by the body for energy or stored as body fat.

## Vitamins

Vitamins are organic substances needed by the body in very small amounts. They help release energy from carbohydrate, fat and protein. Many chemical reactions in the body depend on vitamins.

## Minerals

Minerals are needed in small amounts. They are used to build strong bones and teeth and to make hemoglobin in red blood cells. They also maintain body fluids and chemical reactions. Examples of minerals include: calcium, iodine, iron, magnesium, potassium, sodium and zinc.

The *Dietary Guidelines* suggest that **sodium** be used in moderation. Sodium is a mineral that occurs naturally in some foods, but usually is added to foods during processing or during cooking and eating. Table salt contains **sodium** and **chloride**. Both minerals are needed only in small quantities by the body.

For information on reducing sodium in recipes, see "Modifying Recipes and Menus to Meet the *Dietary Guidelines for Americans*"

## Water

Water, the "forgotten nutrient," is needed to replace body water lost in urine and sweat. It helps transport nutrients, remove wastes and regulate body temperature. Water is an important part of an adequate diet.

*The Dietary Guidelines apply to the diet over several days, not to a single meal or food.*

# Nutritive Value Of Foods

To include the greatest amount of nutrients and meet the *Dietary Guidelines for Americans,* choose a variety of foods for each meal throughout the week. Some foods provide more nutrients than others. A food may be a good source of some vitamins and minerals, but still lack other important ones. A "perfect" food with all essential nutrients does not exist. Also, by regularly serving a variety of foods, children will not become bored with the foods offered and will learn healthy food habits.

Examples of foods that are good sources of various nutrients are listed below.

***Food groups referenced are based on CACFP meal pattern components. Foods listed are creditable toward the meal pattern.***

## Protein

Protein is important for the continued growth, regulation and maintenance of the body's tissues.

Some examples of foods that are good sources of protein include:

**Meat/Meat Alternates**: beef, cheeses, dry beans, dry peas, fish, lentils, nuts, pork, poultry, yogurt

**Milk**: fluid milk

**Vegetables**: dry beans, dry peas

## Fiber

Fiber promotes the elimination of the body's waste. Fiber plays a role in reducing risks of certain cancers and coronary heart disease. It also satisfies the appetite by creating a full feeling.

Foods that are good sources of fiber include:

**Fruits**: apples, bananas, blueberries, cantaloupe, cherries, peaches, pears, prunes, raspberries, strawberries

**Vegetables**: broccoli, carrots, cauliflower, celery, corn, green beans, peppers, potatoes, tomatoes

**Bread/Bread Alternates**: whole grain products, cereals, brown rice

**Meat/Meat Alternates**: dry beans, dry peas, lentils

## Iron

Iron, a mineral, functions primarily as a carrier of oxygen in the body both in the blood and muscles.

Examples of good sources of iron include:

**Meat/Meat Alternates**: dry beans, dry peas, eggs, meat, poultry

**Bread/Bread Alternates**: enriched breads, fortified or enriched cereals

**Vegetables**: dark green leafy vegetables, dry beans, dry peas, lima beans, spinach

## Calcium

Calcium, a mineral, is important for the growth and maintenance of bones and teeth. It is also necessary for muscle contraction, blood clotting, and maintenance of cell membranes.

Some examples of foods that are good sources of calcium include:

**Milk**: fluid milk

**Vegetables**: broccoli, spinach, turnip greens

**Meat/Meat Alternates**: cheeses, yogurt

## Vitamin A

Vitamin A, a fat soluble vitamin, is important for the formation and maintenance of healthy skin, hair, and mucous membranes. Vitamin A helps people see in dim light.

Some good sources of vitamin A include:

**Fruits**: cantaloupe, mandarin oranges, mangos, nectarines, peaches, plums

**Vegetables**: broccoli, carrots, greens, kale, pumpkin, spinach, winter squash, sweet potatoes, tomatoes

**Meat/Meat Alternates**: liver, whole egg, yogurt

**Milk**: fluid milk

## Vitamin E

Vitamin E, a fat soluble vitamin, is an antioxidant. It stabilizes cell membranes and regulates oxidation reactions.

Foods that are good sources of vitamin E include:

**Meat/Meat Alternates**: liver, nuts and seeds, salmon, shellfish, shrimp

**Fruits**: apples, apricots, nectarines, peaches

**Vegetables**: dark green leafy green vegetables, pumpkin

**Bread/Bread Alternates**: multi-grain and enriched breads and cereals

## Vitamin C

Vitamin C, a water soluble vitamin, is important in the formation of collagen, a protein that gives structure to bones and muscles. Vitamin C also aids in the absorption of iron. It is an antioxidant.

Examples of foods that are good sources of vitamin C are:

**Fruits**: cantaloupe, citrus fruits and juices (grapefruit, orange, etc.), kiwi, pineapple, raspberries, watermelon

**Vegetables**: asparagus, broccoli, cabbage, cauliflower, kale, peppers, sweet potatoes, tomatoes

## Folate

Folate, a water-soluble vitamin, helps the body form red blood cells and aids in the formation of genetic material in cells.

Some sources of folate include:

**Meat/Meat Alternates**: black-eyed peas, lentils, liver, red kidney beans

**Vegetables**: leafy green vegetables, spinach

**Bread/Bread Alternates**: whole grain bread products, fortified ready-to-eat cereals

**Fruits**: melon, plums, raspberries, strawberries, tangerines

## B Vitamins

The B vitamins include: thiamin, riboflavin, niacin, vitamin $B_6$ and Vitamin $B_{12}$. The B vitamins have important roles in the body's release of energy during metabolism.

Some good sources of B vitamins include:

**Bread/Bread Alternates**: Enriched and fortified bread products are good sources for thiamin, riboflavin and niacin.

**Meat/Meat Alternates**: Pork products are good sources for thiamin; liver contains riboflavin; and poultry and fish are good sources for niacin.

**Milk**: Fluid milk is as good source of riboflavin.

# Foods of Lesser Nutritional Value

Foods of lesser nutritional value contain few nutrients and may be high in fat, sugar and/or sodium. Following are some common foods that are of minimal nutritional value. To follow the *Dietary Guidelines for Americans*, these foods should be served only in moderation.

## Foods that are higher in fat:

cream soups
cheese
pie crust
nuts
croissants
danishes
granola bars
organ meats
snack crackers
salad dressing
processed meats

## Foods that are higher in sodium:

pickles
relish
bouillon
catsup
salted nuts
soy sauce
mustard
steak sauce
barbecue sauce
canned soups
canned vegetables
processed cheese
meat tenderizer
Worcestershire sauce
cured meats
salad dressing

## Foods that are higher in sugar:

cakes
pastries
granola bars
sweet rolls
doughnuts
pre-sweetened cereals
cookies and bars
toaster pastries
flavored milk
pie filling

*Note: These foods may be available with lower fat, sodium and sugar contents.*

## Sample Menus

Planning menus means more than just thinking of foods that taste good together. The nutritive value of foods must be considered.

On the next page is a sample of menus for five days including breakfast, morning snack, lunch, afternoon snack and supper. These menus follow the *Dietary Guidelines* and meet the Child and Adult Care Food Program meal pattern requirements for children 3-5 years old. Meal pattern requirements are listed in "Crediting Foods."

The *Dietary Guidelines* apply to the diet over several days, not to a single meal or food. An occasional high fat, sugary or salty food can fit into a diet if balanced with other low fat, low sugar or low salt foods. Therefore, many meals must be included when determining if the *Dietary Guidelines* are followed.

Computer programs that analyze the nutritional values of meals are available if you would like to evaluate menus. Using one of these computer programs, a nutrient analysis of the sample weekly menu shows that less than 30% of total calories comes from fat and not more than 10% of calories comes from saturated fat.

## SAMPLE MENUS FOR CHILDREN (ages 3-5)

| REQUIREMENTS | 1ST DAY | 2ND DAY | 3RD DAY | 4TH DAY | 5TH DAY |
|---|---|---|---|---|---|
| **breakfast**<br>bread or bread alternate (including cereal)<br>juice or fruit or vegetable<br>milk, fluid | oatmeal with sugar (1/4 c)<br>orange juice (1/2 c)<br>2% milk (3/4 c) | waffle (1/2 waffle)<br>fresh peach slices (1/2 c)<br>2% milk (3/4 c) | raisin bran cereal (1/3 c)<br>grapefruit juice (1/2 c)<br>*whole wheat toast (1/2 slice)<br>2% milk (3/4 c) | coffee cake<br>melon balls (1/2 c)<br>2% milk (3/4 c) | whole wheat toast (1/2 slice)<br>* scrambled egg (1/4 cup)<br>mixed fresh fruit (1/2 c)<br>2% milk (3/4 c) |
| **a.m. snack**<br>(select 2 of 4)<br>milk, fluid<br>juice or fruit or vegetable<br>bread or bread alternate<br>meat or meat alternate | fresh nectarines (1/2 c)<br>cinnamon-raisin toast (1/2 slice)<br>water | bran muffin<br>2% milk (3/4 c) | grape juice (1/2 c)<br>English muffin (1/2 muffin)<br>*1 tsp margarine<br>*jelly | yogurt (1/2 c)<br>peaches (1/2 c) | apple juice (1/2 c)<br>banana nut muffin |
| **lunch**<br>meat or meat alternate<br>vegetables and/or fruits (2 or more)<br>bread or bread alternate<br>milk, fluid | turkey (1 oz) and Swiss cheese (.5 oz) sandwich<br>* tomato and lettuce garnish<br>whole wheat bread (1 slice)<br>oven-baked fries (1/4 c)<br>strawberries (1/4 c)<br>2% milk (3/4 c) | ground beef chili w/beans (1.5 oz beef and beans and 1/4 c tomato)<br>*rice<br>cornbread (1 small slice)<br>pear halves (1/4 c)<br>2% milk (3/4 c) | grilled chicken (1.5 oz) on whole wheat bun<br>peas (1/4 c)<br>applesauce (1/4 c)<br>2% milk (3/4 c) | tuna salad (1.5 oz tuna) sandwich<br>whole wheat bread (1 slice)<br>coleslaw (1/4 c)<br>blueberries (1/4 c)<br>2% milk (3/4 c) | hamburger (1 oz beef) with cheese (.5 oz)<br>whole wheat bun<br>*lettuce and tomato garnish<br>green beans (1/4 c)<br>canned pears (1/4 c)<br>2% milk (3/4 c) |
| **p.m. snack**<br>(select 2 of 4)<br>milk, fluid<br>juice or fruit or vegetable<br>bread or bread alternate<br>meat or meat alternate | *apple sections<br>granola cookie<br>2% milk (3/4 c) | banana (1/2 c)<br>graham crackers (2 squares)<br>water | orange sections (1/2 c)<br>bagel (1/2 bagel)<br>water | broccoli and cauliflower (1/2 c) with cottage cheese dip<br>saltine crackers (4 crackers) | apple sauce (1/2 c)<br>melba toast (3 slices)<br>water |
| **supper**<br>meat or meat alternate<br>vegetables and/or fruits (2 or more)<br>bread or bread alternate<br>milk, fluid | spaghetti (1/4 cup)<br>meat balls (1.5 beef)<br>tomato sauce (1/4 c)<br>* grated parmesan cheese<br>green beans (1/4 c)<br>Italian bread (1 small slice)<br>* 1 tsp margarine<br>* 1/4 tsp garlic powder<br>2% milk (3/4 cup) | baked chicken (1.5 oz)<br>cooked broccoli (1/4 c)<br>mashed potatoes (1/4 c)<br>whole-wheat roll (1 small roll)<br>*margarine (1 tsp)<br>2% milk (3/4 c) | breaded fish filet (1.5 oz fish)<br>cooked carrots (1/4 c)<br>boiled potatoes (1/4 c)<br>cracked wheat roll<br>2% milk (3/4 c) | chicken tacos (1 oz chicken and .5 oz cheese)<br>*lettuce and tomatoes (1/4 c)<br>taco shell (1)<br>canned corn (1/4 c)<br>mixed fruit cocktail (1/4 c)<br>2% milk (3/4 c) | roast pork (1.5 oz)<br>corn (1/4 c)<br>mixed greens salad (1/4 c) with buttermilk dressing<br>whole wheat roll<br>2% milk (3/4 c) |

* Food items served in addition to the required components of the CACFP meal pattern to increase variety, appeal, nutrient content and calories.

## Vegetarian Diets

**Vegetarian** diets omit meat or all animal products.

There are many different types of vegetarian diets.

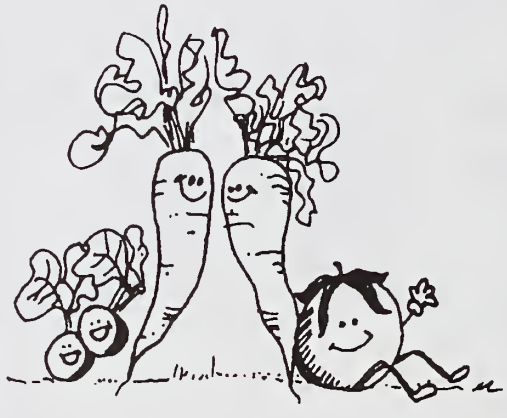
- **vegan** (pure vegetarian): will not eat any foods of animal origin
- **lacto-vegetarian**: will consume milk and milk products, but will not consume other animal foods
- **lacto-ovo-vegetarian**: will consume milk, milk products and eggs, but not meat
- **pesco-vegetarian**: will consume milk and milk products, eggs and fish, but not any other animal foods

| If These Foods Are Excluded | These Are Limited | Include These Foods If Possible* |
|---|---|---|
| Meat, fish, poultry | Protein, iron, energy, zinc, folate, vitamin $B_{12}$, thiamin, essential fatty acids | Milk, dairy products, grains, legumes |
| Milk, dairy products | Protein, energy, calcium, vitamin $B_{12}$, vitamin D, riboflavin | Legumes, soy milk (fortified), dark green vegetables |

* There are no perfect substitutes for animal foods. Because nutrients may be lacking in diets where meat is not consumed, these foods are recommended to replace some of the nutrients.

Whenever food choices are limited, it is more difficult to meet the body's needs for energy and essential nutrients. Vegetarian diets specifically may lack calories, protein, essential fatty acids, calcium, iron, zinc, riboflavin, vitamin $B_{12}$ or vitamin D. A child's growth and development may be stunted when food energy is less than needed.

Vegetarian diets may be accommodated within the Child and Adult Care Food Program meal pattern. For example, dry beans can be served in place of meat. A registered dietitian, sponsor or State agency can provide more information on feeding children who are vegetarians.



## Dental Health

Nutrition plays an important role in the development of healthy teeth.

**To promote dental health**:

- Eat foods rich in calcium and phosphorus.
- Brush teeth or rinse mouth thoroughly with water after eating.
- Eat a variety of firm, fibrous foods to stimulate the release of saliva.
- Brush and floss teeth daily.

## Physical Activity

Physical activity is important for maintaining good health. It burns calories, aids in weight control and helps prevent some chronic diseases. Strength, flexibility, and heart and lung fitness can be improved by participating in physical activities.

There are many types of exercise that children enjoy. Because younger children may not have skills needed for organized sports, active games are usually the best form of exercise. Younger children love to play games such as "tag," "follow the leader," "catch" or "duck, duck, goose."

Older children have better developed motor skills. They can participate in many activities including cycling, skating, swimming or team sports.

Try to encourage all children to exercise and participate in a variety of activities. Success in physical activities and being part of a group can help build a child's self-esteem while maintaining good health.

## Drug and Nutrient Interaction

Medications should be taken only as prescribed by a child's physician. Some medications may affect the body's use of foods. Other times, foods may interfere with a medicine's effectiveness in the body.

If a child is taking medication, ask the parent to provide information or ask a registered pharmacist at a hospital or local drug store about restrictions.

## Children with Special Nutrition Needs

*Child care personnel should never diagnose health conditions; prescribe nutritional requirements; nor revise, change or interpret diet statements. More information, than that provided here, will be needed to care for children with these conditions.*

### Overweight and Underweight Children

It is important that growing children have healthy diets. Children must eat enough food to allow for adequate height and weight gain.

The diets of children who are overweight or underweight may need careful planning and monitoring. Foods, and the amounts served, must be selected wisely. Physical activity is an important component in maintaining proper weight.

### Overweight Children

Overweight children should not be put on strict weight-loss diets. Children should be fed enough food to maintain a constant weight. By doing this, children can safely "grow out" of their overweight condition.

Diets that are too restrictive may be harmful to children. However, it is a good practice to limit the consumption of snack foods which are high in fat or sugar such as potato chips or cookies. Fruits or vegetables are healthier choices for snacks.

Special weight-loss diets for children who are overweight should be prescribed by a registered dietitian, physician or other medical authority.

### Underweight Children

Many children are underweight for a short period of their childhood when they are "sprouting up." With time, their weight will catch up to their height.

Underweight children can safely gain weight, while staying physically active, by increasing caloric intake. Foods that are good sources of carbohydrate, rather than high fat foods, should be added to the diet.

## Food Allergies and Food Intolerances

A food allergy is usually caused by the body's immune system not reacting to a food or food additive appropriately. Symptoms include: wheezing, runny nose, bronchitis, vomiting, diarrhea, rashes, itching and headaches.

Food allergies are most common in infants due to their immature digestive systems. Infant food allergies are usually outgrown during a child's preschool years.

Foods which cause allergic reactions can be eliminated from the diet. However, it is important that the diet still contain a variety of foods for healthy growth and development.

Information about food allergies and food intolerances should be provided by the child's parent(s) and supported by a physician statement.

Children may be sensitive to the following foods or ingredients:

- **flour and baked products**: The consumption of flour and baked products must be carefully watched in persons who are gluten intolerant. Gluten is a protein found in wheat, oats, rye and barley.

- **lactose**: Lactose, commonly referred to as "milk sugar," is found in dairy products. African-Americans, Native Americans and Asians are particularly susceptible to lactose intolerance. Persons with lactose intolerance lack the enzyme needed for the digestion of lactose.

- **sulfites**: Individuals with asthma may be sensitive to sulfites. Sulfites are often added to dried fruit and vegetables.

- **tartrazine (food color, Yellow Number 5)**: An allergic reaction may result from the consumption of this food coloring. Foods that contain tartrazine include orange drinks, dry mix macaroni and cheese and salad dressing.

- **casein:** Some individuals may be sensitive to casein, a milk protein. Casein may be found in canned tuna, non-dairy creamers and baked goods such as crackers.

## Diabetes

Diabetes is a disorder in which the body is unable to produce or respond to insulin. There are two major forms.

Children most often suffer from Type I or insulin dependent diabetes mellitus. This requires insulin injections. Nutrition plays an important role in the control of Type I diabetes.

The second form of diabetes, Type II or non-insulin dependent diabetes, is most common in adults. Obesity is the major nutritional risk for developing this disease.

Special diets may be prescribed by a registered dietitian or physician for persons who are diagnosed as having either form of diabetes.

## Iron Deficiency

**Iron deficiency** is most common in inner cities and rural areas. Individuals with iron deficiency may appear to be tired, unmotivated and apathetic. Iron deficiency may be caused by an inadequate intake of iron, poor absorption of iron or severe blood loss.

Some good sources of iron include fortified bread, meat, dry beans and dark green leafy vegetables. Iron absorption increases when a good source of vitamin C is eaten at the same time as an iron-rich food. A high fiber intake, tea, coffee and some antacids can decrease iron absorption.

## Children With Oral Motor Problems

Children with oral motor problems may need special equipment to eat and/or assistance in eating. Food texture often will need to be modified. Physicians or other medical authorities will be able to provide guidance on preparing special foods.

## Developmental Disabilities

A developmentally disabled child may or may not be able to eat foods recommended for his or her age group. Foods appropriate for younger children may be required or textures of foods may need to be modified. The child may need assistance with eating and may require longer meal service times so that an adequate amount of food is eaten. Some children with developmental disabilities may need to be tube fed.

## Inherited Metabolic Disorders

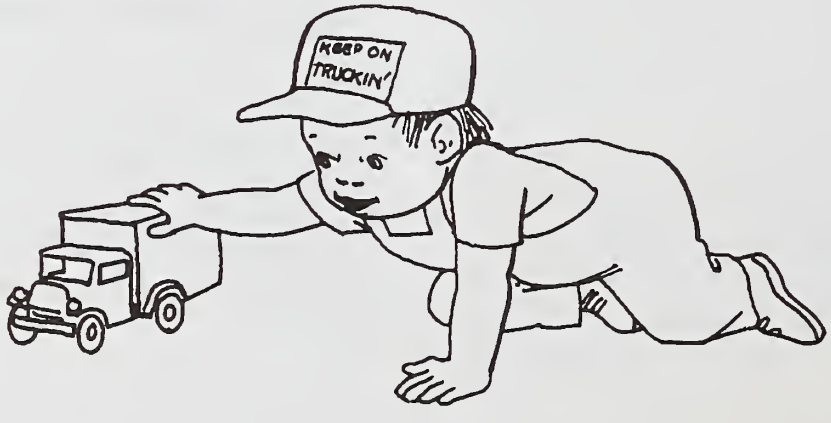
Inherited metabolic conditions include phenylketonuria (PKU), maple syrup urine disease, homocystinuria and galactosemia. Physicians or registered dietitians will prescribe special diets for children who have these conditions.

Children with PKU are unable to digest the amino acid, phenylalanine. Phenylalanine is found in high protein foods and foods that contain the non-caloric sweetener, aspartame (NutraSweet).

Children with maple syrup urine disease or homocystinuria will have diets prescribed that limit certain amino acids.

Children who suffer from galactosemia cannot digest galactose which is found in milk products. Milk, milk products and other foods that contain galactose will be limited from the diet.

*A child whose disability restricts his or her diet shall be provided food substitutions only when supported by a statement signed by a licensed physician. The supporting statement shall identify: the individual's disability and an explanation of why the disability restricts the child's diet; the major life activity affected by the disability; and the food or foods to be omitted from the child's diet and the food or choice of foods that must be substituted. Such meals or snacks shall be claimed at the same reimbursement rate as meals / snacks which meet the meal pattern. The services of a registered dietitian should be utilized to assist in implementing the physician's prescription.*



# Formation of Eating Habits

Eating habits are formed during the early childhood years and last a lifetime. Good eating habits do not just happen; they must be learned. Presenting children with nutritious foods and limiting their access to "empty calorie" foods can help children learn to make nutritionally sound food choices.

It is important that mealtime be a happy time. Pleasant eating experiences can lead to positive attitudes about food and eating.

- Try to understand each child's personality and reaction to foods.

- Encourage children to do as much as possible for themselves. First efforts are an important step toward growth.

Children may be in no hurry to eat once the first edge is taken off their hunger. Urging children to "hurry up" may spoil their pleasure of eating.

## Introducing New Foods

- Introduce only one new food at a time. Offer a very small amount of the new food at first, so that a child learns new flavors and textures. It is best to offer a new food at the beginning of the meal when children are hungry. Also, allow children plenty of time to look at and examine foods.

- Do not introduce a new food to a child who does not feel well or is irritable.

- If you offer a new food and children turn it down, do not make a fuss. Offer the food again a few days later.

- If children accept a new food, let them try it again soon so they become accustomed to it.

## Encouraging Favorable Food Attitudes and Good Eating Habits

- Serve meals in a bright and attractive room.

- Use tables, chairs, dishes, glasses, silverware and serving utensils that suit young children.

- Provide a quiet time just before meals so that the atmosphere can be friendly and relaxed at mealtime.

- Encourage children to help by setting the table, bringing food to the table or clearing and cleaning the table after eating.

- Select and arrange food on plates to make meals interesting and attractive. Include a variety of colors, flavors, textures, shapes and temperatures.

- Do not encourage the "clean plate" ideal. Children may rebel if they are forced to eat unwanted foods. They may learn to overeat if they are told to finish their meals or clean their plates too often.

- Do not allow children to use food to gain special attention.

## Nutrition Education

Teaching nutrition and healthy food practices is most effective when it is part of other learning experiences. Learning is reinforced when children have an opportunity to practice or visualize what is taught.

Here are some nutrition activities that children can do:

- Squeeze oranges and drink the juice for snacks. Roll the oranges on a hard surface, such as a table or counter before juicing.
- Mix a variety of fruits together to make a salad for lunch.
- Grow a potato in water to show how the plant grows from the stored food in the potato.
- Celebrate special occasions like Halloween by baking pumpkin muffins or Washington's birthday by preparing a cherry cobbler.
- Freeze juice in small paper cups to make "juicesicles." Changes in texture, volume and consistency can be observed.
- Role-play in a supermarket setting. This could include selecting foods, putting foods in food groups and exchanging money tokens.

Children can learn about many cultural groups by sharing favorite family menus, recipes, special foods and traditions of their ethnic heritage.

- Children can share holiday traditions and special foods.
- Feature foods from different cultures throughout the year.

Children can learn many things from trips to farms, grocery stores, dairies, bakeries or food companies.

- On a trip to a farm, children can observe cows being milked and learn how milk gets from the farm to the container.
- At a bakery, children can learn how bread is made.

## Questions and Answers

**Q**1. Due to its high fat and cholesterol content, should cheese be served to children?

**A**1. Cheese is a good source of protein, calcium and riboflavin. If cheese is served frequently, use low-fat cheese. Examples of low fat cheeses include: mozzarella made from part-skim milk, ricotta, farmer cheese, feta and low-fat or reduced fat American or cheddar. These usually contain 5 or 6 grams of fat per ounce. Low-fat cottage cheese made from 2% or 1% milk fat can also be served.

**Q**2. What is the difference between ice cream and frozen yogurt?

**A**2. Frozen yogurt is typically lower in fat and higher in protein than ice cream. Ice cream contains 10-18% fat or more by weight. Because there is no standard of identity for frozen yogurt, frozen yogurt can be found with varying levels of fat, sugar and other ingredients. Ice milk is another low-fat substitute for ice cream. These frozen dairy products do not contribute toward any component of the Child and Adult Care Food Program meal pattern.

**Q**3. What is the difference between butter and margarine?

**A**3. Both margarine and butter get 100% of their calories from fat. Butter is a fat made from milk. Margarine is made from vegetable oil. Hydrogenation is the process of making it solid. Both butter and margarine supply the same number of calories per serving. Butter contains more saturated fat than margarine.

**Q**4. What types of desserts should be offered? How often should desserts be served?

**A**4. Only certain types of desserts are creditable in the Child and Adult Care Food Program. Fruits can be served as often as desired for dessert. It is recommended that cookies and other baked products be served for snacks no more than two times per week. Some desserts are high in sugar and fat and should be served in moderation. For more information on the types of baked products that may be credited, refer to "Crediting Foods."

**Q**5. How many calories are needed for a child?

**A**5. The average daily caloric need of children 1-3 years of age is about 1300 calories. Children 4-6 years of age need an average of approximately 1800 calories per day. A healthy diet including a variety of foods will provide sufficient calories.

**Q**6. How often can eggs be served to children?

**A**6. It is recommended that no more than three whole eggs be served to children each week to limit cholesterol intake. This includes eggs served plain and those used in baked or cooked products. The use of egg whites does not need to be

restricted because egg whites do not contain cholesterol.

**Q**7. Can I serve chocolate milk to children?

**A**7. Chocolate milk may be served to children. If possible, try to serve low-fat varieties.

**Q**8. Can I serve water as the beverage at snack time?

**A**8. Yes, water can be offered as a beverage if the snack contains the required two components. Children need to be offered water throughout the day.

**Q**9. What are some healthy food choices that can be served when celebrating birthdays and other special occasions?

**A**9. Creditable foods, such as muffins, graham crackers, or quick breads (baked in cake pans), can be served as healthier alternatives to traditional goodies when celebrating special days. Noncreditable foods such as cupcakes, brownies and ice cream can be served as extra foods or as a dessert.

**Q**10. Are there good and bad foods?

**A**10. Foods should not be identified as good or bad foods. The nutritional quality of a diet is not defined by any single food, but rather the diet eaten over time. All foods, including such favorites as pizza and hot dogs, can be included in nutritious menus planned following the *Dietary Guidelines for Americans.*

**Q**11. What advice can be provided to parents who request a vegetarian diet for children?

**A**11. Parents should be cautioned that unless the vegetarian diet is carefully planned, essential nutrients may not be supplied in quantities necessary to support growth and development. More detailed information on vegetarian diets is provided earlier in this section.

# Modifying Recipes and Menus to Meet the Dietary Guidelines for Americans

By carefully purchasing foods, preparing foods in different ways or substituting ingredients, diets can be made healthier. On the following pages are specific suggestions for reducing the fat, sodium and sugar, and increasing the amount of fiber in recipes. Remember, diets of children less than two years of age should not be restrictive. Fats, sodium and sugar are important elements of healthy diets when consumed in moderation.

When purchasing foods, compare the ingredient lists and nutrition panels on labels of several brands of a food product. Select the brand that contains the least amount of fat, sodium and sugar, and the greatest amount of fiber.

When modifying recipes, it is best to make one modification in a recipe at a time. Reduce or increase the amount of the ingredient to be modified by a small amount at first. Try additional modifications in the recipe later.

Baked products require more careful adjustments than casseroles or soups. For example, drastically reducing the amount of sugar in a cake or fat in biscuits may result in unsatisfactory products. A reduction in fat or sugar may require a slight increase in the amount of liquid used.

Every ingredient has an important role in the production of a satisfactory final product.

- **Fat**

Fat provides flavor and richness, improves texture and tenderness in baked goods, promotes flakiness and lightness in baked goods, and makes foods smooth and creamy.

- **Eggs**

Eggs provide structure, act as thickeners and emulsifiers (help mix fat and water), and add volume to foods when beaten.

- **Sugar**

Sugar provides flavor, increases tenderness and browning in baked goods, acts as a preservative in jams, jellies and pickles, and helps yeast products rise.

- **Salt**

Salt provides flavor, slows or reduces the action of yeast in yeast breads, and acts as a preservative in canned goods and some dried foods.

## Suggestions for Reducing Fat

- Use low-fat (2% or 1%) or skim milk rather than whole milk.
- Replace sour cream with low-fat yogurt. Add one tablespoon of cornstarch to every one cup of yogurt to prevent separation when heating. A recipe for a "sour cream substitute" is provided on the following page.
- Blend mayonnaise with low-fat cottage cheese for a low-fat mayonnaise substitute or purchase commercial low-fat mayonnaise.
- Purchase water-packed tuna rather than oil-packed tuna.
- Use low-fat varieties of cheese such as part-skim mozzarella, farmer cheese, muenster, provolone or reduced-fat cheddar or American cheese.
- Choose ground beef that is at least 80% lean (less than 20% fat).
- Substitute lean ground turkey for all or part of ground beef in recipes.
- Remove skin from poultry and trim off fat.
- Chill soups, gravies and stews. Skim off hardened fat before reheating to serve.
- Trim off all visible fat from meats.
- Drain all fat from cooked meats.
- Serve meat and potatoes without gravy.
- Use spices, herbs and/or lemon juice rather than butter on vegetables.
- Substitute two egg whites for each whole egg in most muffin, cookie or pudding recipes.
- Limit the use of condensed soups. Try the recipe for the condensed soup substitute included on the next page.
- Use buttermilk or milk instead of egg to bind breading on chicken.
- Use half the specified amount of oil to saute or brown foods.
- Substitute applesauce for one-half of the butter or margarine in cookies or cakes.
- Use no more than one egg per one cup of flour in pancakes.
- Bake, broil or roast meat rather than frying.
- Replace frankfurters, bologna or other processed meat with lean meat, poultry or fish.
- Limit the use of pan-fried or deep-fat-fried foods.
- Limit the use of high-fat crackers and breads such as croissants and some muffins and specialty breads.
- Garnish fish with lemon juice rather than tartar sauce.

*Do not try to limit the fat consumption of children under two years of age. Children under the age of two need fat in their diets for normal growth and development.*

### Low-fat Condensed Soup Substitute

1 tablespoon margarine
2 tablespoons flour
1 cup skim milk
1/4 teaspoon salt (optional)
1/4 cup chopped celery, sliced cooked mushrooms, or cooked chicken (optional)

1. Melt margarine. Stir in flour.
2. Add milk gradually.
3. Stir over low heat until thick
4. Add one or more of the optional ingredients, if desired.

This recipe replaces one can of condensed soup.

### Sour Cream Substitute

1 cup low-fat cottage cheese
1 tablespoon fresh lemon juice

1. Combine cottage cheese and lemon juice.
2. Whirl in a blender or beat until smooth.

This recipe makes one cup of sour cream substitute.

## Suggestions for Reducing Sodium

- Omit or reduce by one-half the amount of table salt in most recipes.
- Include a variety of spices, seasonings, herbs and vegetables in recipes rather than table salt. For example, try chives, dill, garlic or vinegar on cucumbers; serve green beans with lemon juice or sauteed onions; top potatoes with parsley; try bay leaf, fresh mushrooms, onion or thyme on beef; season poultry with lemon juice, marjoram, fresh mushrooms, paprika, parsley, sage or thyme; or season fish with bay leaf, curry powder, lemon juice, fresh mushrooms or paprika.
- Try the three low-sodium seasoning blend recipes included on the following page.
- Decrease the use of celery salt, seasoned salt, soy sauce, monosodium glutamate (MSG), Worcestershire sauce or bouillon cubes.
- Use garlic or onion powder in place of garlic or onion salt.
- Make soup stock from turkey, chicken or beef bones limiting the amount of bouillon base added.
- Use fresh or frozen foods rather than canned foods.
- Serve processed meats only occasionally.

### Seasoning Blend #1

*a low-sodium "all-purpose" seasoning for meats, vegetables and tomato-based foods*

2 tablespoons dry mustard
2 tablespoons onion powder
2 tablespoons paprika
2 teaspoons garlic powder
2-3 teaspoons black or white pepper
2 teaspoons thyme
1/2 teaspoon ground basil

Blend spices thoroughly. Store extra seasoning in tightly covered glass bottle.

Yield: approximately 1/2 cup seasoning

### Seasoning Blend #2

*an "all-purpose" seasoning to pep up chicken, hamburger and tomato-based dishes*

4 tablespoons onion powder
4 tablespoons parsley flakes, crushed
2 tablespoons garlic powder
2 tablespoons paprika
1 tablespoon ground basil

Blend spices thoroughly. Store extra seasoning in tightly covered glass bottle.

Yield: approximately 3/4 cup seasoning

### Seasoning Blend #3

*a low-sodium seasoning for pasta sauces or Italian dishes*

4 tablespoons dried parsley, crushed
4 teaspoons dried minced onion
1 teaspoon ground oregano
2 teaspoons dried basil, crushed
1 teaspoon ground thyme or marjoram
2 teaspoons celery seed
1 teaspoon garlic powder
1/4 teaspoon black pepper

Blend spices thoroughly. Store extra seasoning in tightly covered glass bottle.

Yield: approximately 1/2 cup seasoning

## Suggestions for Reducing Sugar

- Use up to 1/3 less sugar in traditional recipes for cookies, muffins, quick breads and pie fillings. This includes sugar, brown sugar, corn syrup, honey and molasses.
- Replace canned fruits packed in heavy syrup with fresh fruits or canned fruits packed in natural juices or water.
- Limit the use of jams, jellies or flavored gelatins.
- Serve quick breads rather than high sugar cakes or cookies. Try banana, carrot, cranberry, pumpkin or zucchini bread.
- Serve seasonal fresh fruits for dessert rather than cakes, cookies or pies.

## Suggestions for Increasing Fiber

- Substitute whole wheat flour for up to one-half of the all-purpose flour in your favorite bread recipes.
- Substitute beans (kidney, pinto or black beans) for up to one half of the meat in entrees such as chili or tacos.
- Prepare potatoes with skins, rather than peeled. Encourage the consumption of potato skins which are high in fiber.
- Add fruits such as chopped apples with skin, raisins or chopped prunes to oatmeal, cookies, cakes and breads.
- Use oatmeal rather than white bread crumbs as an extender in meatloaf or meatballs.
- Serve raw vegetables such as broccoli, cauliflower, carrots and celery for snacks.
- Top cereals with fresh or frozen fruits such as blueberries, bananas or peaches.

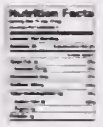
# Menu Modification

A healthful diet offers a variety of foods and is low in fat, saturated fat and cholesterol, and contains salt and sugar in moderation. Following is an example of how a lunch or supper menu can be made more healthful with simple modifications.

| MENU | CALORIES | FAT (GRAMS) |
|---|---|---|
| Chicken nuggets<br>(1.5 oz meat equivalent)<br>with BBQ sauce | 226<br><br>50 | 15<br><br>— |
| Deep-fat-fried french fries (1/4 cup)<br>with tomato catsup | 45<br>18 | 2<br>— |
| Italian bread (1 slice)<br>with margarine (1 tsp) | 73<br>34 | 1<br>4 |
| Peaches in heavy syrup<br>(1/4 cup fruit) | 47 | — |
| Whole milk (3/4 cup) | 112 | 6 |
| **Total** | 605 | 28 (42% fat) |

| MENU MAKE-OVER | CALORIES | FAT (GRAMS) |
|---|---|---|
| Chicken nuggets *<br>(1.5 oz meat equivalent)<br>with BBQ sauce | 171<br><br>50 | 9<br><br>— |
| Oven-baked french fries * (1/4 cup)<br>with tomato catsup | 31<br>18 | 1<br>— |
| Italian bread (1 slice)<br>with margarine (1 tsp) | 73<br>34 | 1<br>4 |
| Peaches in light syrup *<br>(1/4 cup fruit) | 34 | — |
| 2% chocolate milk * (3/4 cup) | 134 | 4 |
| **Total** | 545 | 19 (31% fat) |

- a lower fat variety of chicken nuggets was chosen
- oven-baked fries are a low-fat substitute for deep-fat-fried french fries
- peaches in light syrup are lower in sugar than peaches in heavy syrup
- 2% chocolate milk is lower in fat than whole milk



# Understanding Food Labels: What's in a Food?

## Overview of Food Labeling

Modern American supermarkets are different from food markets in other countries around the world. Foods are in boxes, bottles, jars and other packages. Few foods are raw or unpackaged. Food labels are present on most of these packaged food products. Labels help consumers better understand foods.

The U.S. Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) and the U.S. Department of Health and Human Services' (DHHS) Food and Drug Administration (FDA) are responsible for assuring that food labels contain truthful and accurate information. The FSIS has authority over all products containing more than 3 percent fresh meat or at least 2 percent cooked poultry. The FDA oversees the labeling of most other food products.

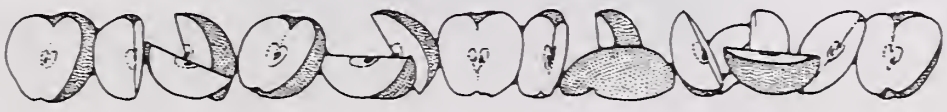
According to law, every food label must include:

- the common name of the product
- the name and address of the manufacturer, packer or distributor
- the net contents in terms of weight, measure or count
- the ingredients, in order of predominance by weight from greatest to least
- nutrition information
- serving size

## The Nutrition Labeling and Education Act

Under the Nutrition Labeling and Education Act (NLEA) of 1990, the format and content of food labels were improved to provide more complete, useful and accurate nutrition information.

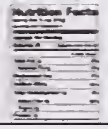
Non-meat or non-poultry companies must follow the NLEA labeling requirements by May 1994. All meat and poultry companies must follow the new labeling laws by July 1994. Some "old" labels will remain on products past the May 1994 or July 1994 dates. This is because food companies are allowed to use up their supplies of "old" labels before they use updated labels.



# Key Changes in Food Labeling Under the Nutrition Labeling and Education Act

The Nutrition Labeling and Education Act requires:

- **Nutrition labeling for almost all foods.**
- **Information on the amount per serving of saturated fat, cholesterol, dietary fiber and other nutrients that are of major health concern.**
- **Nutrient reference values (percent of daily values)** to show how a food fits into an overall daily meal plan.
- **Standardized serving sizes for products** which make nutritional comparison of similar products easier.
- **Nutrition information for non-labeled products near their point-of-purchase.** Twenty of the most popular types of raw seafood and fruits and vegetables may have nutrition information provided near their display in grocery stores. Nutrition information may also be available for the most popular cuts of meat and poultry.
- **Specific health claims about the relationship between nutrients and diseases** such as: (1) calcium and osteoporosis, (2) fat and cancer, (3) sodium and hypertension, (4) saturated fat and cholesterol and coronary heart disease, (5) fiber-containing grain products, fruits and vegetables and cancer, (6) fruits, vegetables and grain products that contain fiber and coronary heart disease, and (7) fruits and vegetables and cancer. Other health claims may be allowed after further testing.
- **Declaration of the total percentage of juice in juice drinks.**
- **Uniform definitions for terms that describe a food's nutrient content.** Terms such as "low-fat," "high fiber," "free," "low," "light" and others are defined. A chart providing definitions of nutrient content descriptors is on the following page.



## Nutrient Descriptors and Their Definitions

| Description | Definition |
|---|---|
| **Free** | The reference amount used on the food label contains none or a very little amount: less than 5 calories and less than 5 mg sodium; less than 0.5 g total fat and saturated fat; less than 2 mg cholesterol or 0.5 g sugar. |
| **Low** | The reference amount contains no more than 40 calories; 140 mg sodium; 3 g fat. |
| **Lean** | The reference amount of meat, poultry, seafood or game meats contains less than 10 g fat, 4.5 g saturated fat and 95 mg cholesterol. |
| **Extra lean** | The reference amount contains less than 5 g fat, 2 g saturated fat, and 95 mg cholesterol. |
| **High** | The reference amount contains 20% or more of the Daily Value for a particular nutrient. |
| **Good source** | A reference amount contains 10-19% of the Daily Value for a particular nutrient. |
| **Reduced** | A reference amount of a nutritionally altered product contains 25% less of a nutrient or 25% fewer calories than a reference food; cannot be used if the reference food already meets the requirement for a "low" claim. |
| **Less** | A reference amount of food contains 25% less of a nutrient or 25% fewer calories than a reference food. |
| **Light** | (1) A reference amount of an altered product contains 1/3 fewer calories or contains less than 50% of the fat in a reference food; if 50% or more of the calories come from fat, the reduction must be 50% of the fat; or (2) the sodium content of a low-calorie, low-fat food has been reduced by 50%; or (3) the term describes such properties as texture and color, as long as the label explains the intent (for example, "light brown sugar" or "light and fluffy"). |
| **More** | A reference amount contains at least 10% more of the Daily Value of a nutrient more than a comparison food. |
| **% Fat free** | A product must be low-fat or fat-free, and the percentage must accurately reflect the amount of fat in 100 g of a food. Thus, 2.5 g of fat in 50 g of food results in a "95% fat-free" claim. |
| **Fresh** | (1) A food is raw, has never been frozen or heated, and contains no preservatives; or<br>(2) The term accurately describes the product (for example, "fresh milk," or "freshly baked bread"). |
| **Fresh frozen** | The food has been quickly frozen while still fresh; blanching is allowed before freezing to prevent nutrient breakdown. |

The Food and Drug Administration will not allow the use of the above nutrient claims on infant and toddler foods. The terms "unsweetened" and "unsalted" are allowed on these foods because they relate to taste and not nutrient content.

# The Nutrition Panel

The **nutrition panel** provides information on the nutrient content of a food. This panel is headed by the title, "Nutrition Facts." See the sample of a nutrient panel on the next page.

Under the Nutrition Labeling and Education Act (NLEA), nutrition information must be listed for:

- total calories
- calories from fat
- total fat
- saturated fat
- cholesterol
- sodium
- total carbohydrate
- dietary fiber
- sugars
- protein
- vitamin A
- vitamin C
- calcium
- iron

Labels may also include information on: polyunsaturated fat, monounsaturated fat, potassium, soluble fiber, insoluble fiber and other essential vitamins and minerals.

Information from the nutrition panel can be used to see if diets are meeting the Dietary Guidelines. The Dietary Guidelines recommend that 30% or less of a diet's calories come from fat daily and less than 10% of total daily calories come from saturated fat.

## Determining Percent of Calories from Fat Using *Grams of Fat*

1. Number of grams from fat in a total day's diet. _____(1)
2. Multiply grams from fat (1) by 9 to find total calories in the foods. (9 calories fat per gram) _____(2)
3. Total calories in a total day's diet. _____(3)
4. Divide number of calories from fat (2) by total number of calories (3). _____(4)
5. Then multiply (4) by 100 to find percent of calories from fat. _____(5)

**Example:**

| | | |
|---|---|---|
| 1. | Grams from fat. | 50 |
| 2. | Calories from fat. | 450 |
| 3. | Total calories in a serving. | 1500 |
| 4. | Step 2 divided by step 3. | 0.30 |
| 5. | Step 4 multiplied by 100. | 30% |

## Determining Percent of Calories from Fat Using *Calories from Fat*

1. Number of calories from fat in a total day's diet. _____(1)
2. Total calories in a day's diet. _____(2)
3. Divide number of calories from fat in a serving (1) by the total number of calories in a serving (2). _____(3)
4. Then multiply (3) by 100 to find percent of calories from fat. _____(4)

**Example:**

| | | |
|---|---|---|
| 1. | Calories from fat. | 450 |
| 2. | Calories per serving. | 1500 |
| 3. | Step 1 divided by step 2. | 0.30 |
| 4. | Step 3 multiplied by 100. | 30% |

# The New Food Label at a Glance

**The new food label will carry an up-to-date, easier-to-use nutrition information guide, to be required on almost all packaged foods (compared to about 60 percent of products up till now). The guide will serve as a key to help in planning a healthy diet.***

**Serving sizes** are now more consistent across product lines, stated in both household and metric measures, and reflect the amounts people actually eat.

## Nutrition Facts

Serving Size ½ cup (114g)

Servings Per Container 4

**Amount Per Serving**

| | |
|---|---|
| **Calories** 90 | Calories from Fat 30 |
| | **% Daily Value*** |
| **Total Fat** 3g | **5%** |
| Saturated Fat 0g | **0%** |
| **Cholesterol** 0mg | **0%** |
| **Sodium** 300mg | **13%** |
| **Total Carbohydrate** 13g | **4%** |
| Dietary Fiber 3g | **12%** |
| Sugars 3g | |
| **Protein** 3g | |

| | | | | |
|---|---|---|---|---|
| Vitamin A | 80% | • | Vitamin C | 60% |
| Calcium | 4% | • | Iron | 4% |

* Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

| | Calories | 2,000 | 2,500 |
|---|---|---|---|
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

**New title** signals that the label contains the newly required information.

**Calories from fat** are now shown on the label to help consumers meet dietary guidelines that recommend people get no more than 30 percent of their calories from fat.

**% Daily Value** shows how a food fits into the overall daily diet.

The **list of nutrients** covers those most important to the health of today's consumers, most of whom need to worry about getting too much of certain items (fat, for example), rather than too few vitamins or minerals, as in the past.

The label of larger packages must now tell the number of calories per gram of fat, carbohydrate, and protein.

**Daily Values** are also something new. Some are maximums, as with fat (65 grams or less); others are minimums, as with carbohydrate (300 grams or more). The daily values for a 2,000- and 2,500-calorie diet must be listed on the label of larger packages. Individuals should adjust the values to fit their own calorie intake.

* This label is only a sample. Exact specifications are in the final rules.

Source: Food and Drug Administration 1993

**Daily Reference Values and Percent Daily Value** are both new under the NLEA. Daily reference values, or "daily values", are included for total fat, saturated fat, cholesterol, sodium, total carbohydrate and fiber. The daily values provide recommendations for daily intake of the nutrients based on daily caloric intakes of 2000 and 2500 calories. Some of these daily values are **maximums**, as with total fat (65 grams or less). Others are **minimums**, as with carbohydrates (300 grams or more). Review the lower section of the sample nutrition panel on the preceding page.

Daily values for each nutrient are less when fewer calories are eaten. Likewise, when caloric intakes are greater, daily values are higher.

The percent daily values show how well the nutrients in a food fit into an overall daily diet with 2000 calories. The sample label, provided on the preceding page, shows that 5% of the daily value for total fat and 0% of the daily value for saturated fat are provided by one serving (based on a 2000 calorie intake).

The percent daily values are higher when caloric intakes are less. For example, a child may consume 1500 calories per day. In which case, the percent daily value for each nutrient is greater than the percent daily value listed for a 2000 calorie diet.

## Some Things to Know About Breads and Bread Products

*Breads and bread products are creditable if whole-grain and/or enriched flour and/or meal is the primary ingredient by weight as specified on the label.*

**Whole-grain** refers to grains that include the bran, the germ and the endosperm. "Whole-grain flour" is made by grinding the entire grain. If a flour or meal does not contain all parts of the grain, it is not whole-grain. For example, oat bran and wheat germ are not whole grain.

**Refined** grains have their coarse parts removed. Refined flour does not include the bran or germ. When the bran and germ are removed, some essential nutrients, including fiber, are lost. White bread and hot dog buns are examples of breads that are usually made from refined flours. Refined bread products are only creditable for the CACFP if they are enriched and/or fortified.

**Enrichment** of bread or bread products refers to the process by which nutrients (thiamin ($B_1$), niacin ($B_2$), riboflavin ($B_3$), and iron) are added to refined grains and grain products at levels specified by law. If the flour in the product is enriched, the ingredient statement will indicate that enriched flour was used. A bread product, rather than the flour, may also be enriched. In this case, the ingredient list will show that thiamin, riboflavin, niacin and iron were added to the product.

**Fortification** refers to the addition of one or more vitamins, minerals or proteins to a food. If a food is fortified, then the label will state specifically that it is fortified.

Most bread products contain significant quantities of **dietary fiber**. Whole-wheat and whole-grain breads, usually contain more magnesium, zinc, vitamin $B_6$, vitamin E and folate, as well as fiber, than enriched breads made from refined flour (i.e. white bread).

**Oat bread** is usually white bread with a small amount of oats added. Check the ingredient list to see how far down on the list "oats" are listed. If it appears toward the end of the list, the bread contains little fiber.

**Wheat bread** often has wheat flour or enriched wheat flour (not whole-wheat flour) as the main ingredient. This bread is low in fiber unless the manufacturer has added fiber.

**Whole-wheat bread** contains the whole grain, including the fiber-rich bran and germ. Whole-wheat flour should be the first ingredient.

Check the label for fiber content. Breads with two or more grams of fiber per slice are good sources of fiber.

## Some Things to Know About Fruit Juices

*Full-strength (100%) fruit juices are creditable.*

**Full-strength fruit juice** is a product which contains no additional water or other ingredients such as sweeteners, spices or flavorings. Examples of full-strength fruit juice are: apple (including cider), grape, grapefruit, orange, pineapple, prune, tangerine and any combination of any of these full-strength juices.

Fruit drinks are beverages that contain full-strength juice along with added water, and possibly other ingredients such as sweeteners, spices or flavorings. Some commonly seen fruit drinks that cannot count toward the meal pattern include: nectars, lemonade or cranberry juice cocktail. These drinks contain less than 50% full-strength juice.

Fruit juice labels should be read carefully. Look for 100% fruit juice. Other juice products contain water and sweeteners such as corn syrup or sugar.

Some State agencies and sponsors credit only full-strength juices (100%). Others may credit fruit drinks that contain at least 50% fruit juice when twice the required amount is served. For more information, contact your State agency or sponsor.

## Some Things to Know About Processed Meats

Frankfurters, bologna, knockwurst and Vienna sausage can be credited toward the meal pattern if they are "all meat" or contain **fortified** vegetable protein products as the only added binder/extender. When frankfurters, bologna, knockwurst and Vienna sausage contain other binders/extenders, they are not creditable.

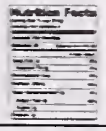
Binders and extenders hold processed meats together and may aid in retaining product moisture. Sometimes, they are used to supplement the amount of meat or poultry present in a product.

Examples of binders/extenders include:

- soy flour *
- starchy vegetable flour
- calcium reduced dried skim milk
- soy protein concentrate *
- cereal
- isolated soy protein *
- dried milk

Processed meats that contain any of the above binders/extenders are not creditable. For processed meats other than frankfurters, bologna, knockwurst and Vienna sausage, crediting should be based on the meat portion only.

** These products can be generally categorized as vegetable protein products, and **only** when fortified and used according to regulations can they be credited toward the meal pattern as a meat alternate.*



# Reading Ingredient Lists

Ingredient lists can be used to determine if foods meet the meal pattern requirements.

## Cookies

**Ginger Snaps**
Ingredients: enriched flour (flour, niacin, reduced iron, thiamine mononitrate [vitamin $B_1$], riboflavin [vitamin $B_2$]), sugar, molasses, vegetable shortening (contains one or more of the following partially hydrogenated oils: soybean, cottonseed, canola), high fructose corn syrup, ginger, baking soda, salt, oil of lemon.

These cookies are **creditable** because enriched flour is the primary ingredient by weight.

**Chocolate Sandwich Cookies**
Ingredients: sugar, enriched wheat flour (contains niacin, reduced iron, thiamin mononitrate [vitamin $B_1$], riboflavin [vitamin $B_2$], vegetable and animal shortening (partially hydrogenated soybean oil with hydrogenated cottonseed oil, lard), cocoa (processed with alkali), high fructose corn syrup, corn flour, whey, chocolate, baking soda, salt, soy lecithin (emulsifier), vanillin, and artificial flavoring.

These cookies are **not creditable** because whole grain and/or enriched flour is not the primary ingredient by weight. Breads and bread alternates must have whole grain, enriched flour or meal listed first on the list of ingredients in order to be creditable.

## Cereals

**Wheat Flakes**
Ingredients: whole wheat, sugar, salt, calcium chloride, trisodium phosphate, vitamin C (sodium ascorbate), niacinamide, iron, vitamin A (palmitate), riboflavin (vitamin $B_2$), thiamin mononitrate (vitamin $B_1$), folic acid, and vitamin D.

This cereal is **creditable** toward the meal pattern because whole wheat (a whole grain) is the primary ingredient by weight.

**Sweetened Apple Cereal**
Ingredients: sugar, corn, wheat, and oat flour, salt, dried apples, apple juice concentrate, cinnamon, color added.

This cereal is **not creditable** because sugar, not whole wheat and/or enriched flour, is the primary ingredient by weight. Whole grain and/or enriched flour or meal must be listed first in the ingredient list.

## Crackers

**Toasted Rye Crackers**
Ingredients: enriched wheat flour containing niacin, reduced iron, thiamine mononitrate (vitamin $B_1$) and riboflavin (vitamin $B_2$), vegetable shortening (partially hydrogenated soybean and cottonseed oils with TBHQ to preserve freshness), rye flour, sugar, corn syrup, salt, caraway seeds, leavening (sodium bicarbonate, sodium acid pyrophosphate, monocalcium phosphate), artificial color (caramel).

These crackers are **creditable** because enriched flour is the primary ingredient by weight.

**Wheat Crackers with Wheat Germ**
Ingredients: unbleached flour, wheat germ, coconut oil (contains citric acid), vegetable oil shortening, sugar, salt, ammonium bicarbonate, skim milk powder, bran, hydrolyzed soya protein, baking soda, sodium metabisulphite (a preservative), protease.

These crackers are **not creditable** because the flour is not whole grain or enriched. If the flour or the product were enriched, the crackers would be creditable.

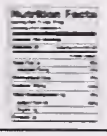
## Processed Meats

**Frankfurters**
Ingredients: pork, turkey, water, salt, corn syrup, dextrose, flavoring, sodium erythorbate, sodium nitrite.

These frankfurters are **creditable** toward the meal pattern because they are all meat and do not contain binders/extenders.

**Low Fat Polish Sausage**
Ingredients: pork, water, turkey, beef, starch (modified food and vegetable), hydrolyzed milk protein, dextrose, corn syrup, salt, flavorings, autolyzed yeast, sodium lactate, sodium phosphate, gelatin, vitamin C (ascorbic acid), sodium nitrite.

These sausages are **not creditable** because they contain **modified food and vegetable starch and hydrolyzed milk protein** which are binders/extenders. To be creditable, most sausages and processed meats must be all meat and not contain any binders/extenders. Refer to the information on processed meats included in this section.



## Fruit Juices

**Apple Mixed Fruit Juice -** 100 % Pure Fruit Blend
Ingredients: concentrated juices (apple, grape, pear, and boysenberry), water, a combination of citric acid, calcium hydrate, and malic acid (calcium fortification), natural flavor, and vitamin C.

This juice is **creditable** because it is a full-strength fruit juice. Juices are not full-strength when sweeteners, spices and flavorings are added.

**Fruit Punch**
Ingredients: water, corn syrup, fruit juice from concentrate (apple, pineapple, cherry), citric acid, xanthan gum, sodium citrate, ascorbic acid (vitamin C), gum arabic, glycerol abietate, brominated vegetable oil, citrus oils, natural and artificial flavors, artificially colored (red #40).

Fruit punch is **not creditable**. Fruit punch commonly contains less than 50% full-strength fruit juice. Some State agencies and sponsors credit only full-strength (100%) fruit juice. Others may credit fruit drinks that contain at least 50% fruit juice when twice the required amount is served.

# Commercially Processed Combination Foods

It is very difficult to determine the amount of bread, meat, fruit or vegetables in some commercially prepared foods. For example, the amount of meat or cheese in frozen ravioli, the amount of tomato in canned chili, the weight of the crust in a pizza, or the amount of breading on fish sticks may not be known. Foods should not be credited toward meeting a meal component when the actual content (i.e. meat, bread) is not known.

A food can be credited when documentation shows that the food contains enough of specific ingredient(s) to count toward the meal pattern. Two types of documentation are acceptable. These are a manufacturer's analysis sheet and a Child Nutrition label.

## Analysis Sheets

A commercially processed combination food can be credited when a product analysis sheet is on file. It must include a statement of the amount of cooked lean meat/meat alternate, bread/bread alternate and/or fruit/vegetable components provided by the food per serving. This analysis must be signed by an official of the manufacturer (not a salesperson). Contact your State agency or sponsor for more information.

## Child Nutrition Labels

The USDA Food and Nutrition Service (FNS) offers a voluntary technical assistance program called the Child Nutrition (CN) Labeling Program for food companies who manufacture meat and poultry products or fruit juices. CN labels list information about a food's contribution toward the meal pattern.

The CN labeling process involves a review of the manufacturer's recipe to determine the contribution that a serving of the commercially prepared product makes toward the meal pattern requirements. CN labels state a product's contribution toward the meal pattern requirements.

Products that can be CN labeled include meat/meat alternate products or fruit juices that contribute to the meal pattern. For example, CN labels may appear on: frankfurters, pizza, breaded chicken patties and apple juice.

CN labeled products are usually packaged in bulk quantities. These foods are commonly purchased by schools and institutions that serve meals to large groups of people. CN labeled products are not typically found in neighborhood grocery stores.

The CN label is a food product label that contains a CN label statement and CN logo. The **logo** is a distinct border around the edges of the CN label statement. The CN label **statement** includes:

- a statement of the product's contribution toward meal pattern requirements
- a six-digit product identification number
- a statement specifying that the use of the CN logo and CN statement was authorized by FNS
- the month and year of approval

For example:

CN

000000

This 1.95 oz. Fully Cooked Beef Patty provides 1.50 oz. equivalent meat/meat alternate for the Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 05-84.)

CN CN

CN

A CN label on a product does not mean that a food provides an entire serving of a meal component. When using CN labeled products, be sure that the amount served meets the CACFP meal pattern quantity requirements.

CN labels do not address the nutritional value of a product. They only address a product's contribution to the meal pattern. The purpose of a CN label is not to provide nutrition information. For information on the food's nutritive value, review the label's ingredient list and corresponding nutrition information.

# Feeding Infants

## The Infant Meal Pattern

The infant meal pattern chart, located on the next page, shows the types and amounts of foods that must be served to infants. The first year of life, from birth until the baby's first birthday, is divided into three age groups, each consisting of 4 months.

There are ranges given for each food portion in the meal pattern to allow for flexibility in how much food is served to the baby, based on his or her appetite and development. The amounts listed are the minimum portions required to meet the meal pattern requirements. Some babies may need more than these amounts. Babies can be served larger portions or additional foods.

In the 4 through 7 month age group, the portions for solid foods are listed as 0 to 3 tablespoons. Solid foods are optional for this age group. Children who are not developmentally ready for solid foods should not be fed them.

Food served should always be of appropriate texture and consistency. Solid food can be introduced gradually to infants, who are four months of age or older. The decision to introduce solid foods should always be made in consultation with the parents.

Babies may have small appetites. They may not be able to eat a complete meal at one time. Foods may be served over a period of time, rather than at one time. For example, the food items shown for lunch can be served at two or more feedings, perhaps between 12:00 noon and 2:00 pm.



## Child and Adult Care Food Program Infant Meal Pattern

| | birth through 3 months | 4 through 7 months | 8 through 11 months |
|---|---|---|---|
| **breakfast** | 4-6 fluid oz breast milk or iron fortified infant formula<br><br>*Meals containing only breast milk are not reimbursable.* | 4-8 fluid oz breast milk or iron fortified infant formula<br><br>0-3 Tbsp infant cereal (optional) | 6-8 fluid oz breast milk, iron fortified infant formula, or whole milk<br><br>2-4 Tbsp infant cereal<br><br>1-4 Tbsp fruit and/or vegetable |
| **lunch or supper** | 4-6 fluid oz breast milk or iron fortified infant formula<br><br>*Meals containing only breast milk are not reimbursable.* | 4-8 fluid oz breast milk or iron fortified infant formula<br><br>0-3 Tbsp infant cereal (optional)<br><br>0-3 Tbsp fruit and/or vegetable (optional) | 6-8 fluid oz breast milk, iron fortified infant formula or whole milk<br><br>2-4 Tbsp infant cereal **or**<br>1-4 Tbsp meat, fish, poultry, egg yolk, cooked dry beans or dry peas, **or**<br>1/2 - 2 oz cheese **or**<br>1-4 oz cottage cheese, cheese food or cheese spread<br><br>1-4 Tbsp fruit and/or vegetable |
| **supplement** | 4-6 fluid oz breast milk or iron fortified infant formula<br><br>*Meals containing only breast milk are not reimbursable.* | 4-6 fluid oz breast milk or iron fortified infant formula | 2-4 fluid oz breast milk, iron fortified infant formula, whole milk or fruit juice<br><br>0-1/2 slice bread or<br>0-2 crackers (optional) |

- Meals containing **breast milk** may be claimed when the infant is 4 months old or older and when the center or day care home provider provides at least one other required meal component.
- **Formula** served must be iron-fortified infant formula. The formula must be intended as the sole source of food for normal, healthy infants, and must be served in the liquid state at the manufacturer's recommended dilution.
- **Infant cereal** must be iron-fortified, dry infant cereal. Infant cereal is often mixed with breast milk, formula or milk.
- **Fruit juice** must be full-strength.
- **Bread or crackers** must be made from whole-grain or enriched meal or flour.
- **Nuts, seeds or nut butters** are allowed as a meat alternate.
- **Whole milk** may be served at 8 months of age as long as the infant is consuming approximately 1/3 of his/her calories as a balanced mixture or cereal, fruits, vegetables, and other foods. (A policy change in the near future will not allow whole milk to be served to children less than one year old. Contact your State agency or sponsor for information.)

## Breast Milk

Breast milk may be served as part of the infant meal pattern. Infants, mothers and child care providers benefit when infants are breastfed. Some advantages of using breast milk include:

- Breast milk is the best food for a baby because it provides energy and all the right vitamins and minerals in appropriate amounts.
- Breast milk contains antibodies which protect the infant's digestive tract from infection. These antibodies are not present in infant formula or cow's milk.
- Breast milk is easy for the infant to digest. At birth, the infant's digestive system is not fully developed making it difficult to digest cow's milk protein, casein. Breast milk protein forms an easy to digest curd unlike casein which forms a tough curd in the infant's stomach.
- Breast milk is ready-to-feed and does not cost anything.
- Allergic reactions to breast milk are minimal. Breastfed babies do not get sick as often as formula-fed babies.
- Breastfed babies have constipation and diarrhea less often.
- Breastfeeding provides the mother and child a great opportunity to form a close bond.

Many mothers wish to continue breast feeding after they return to work. Providers can help mothers continue to breastfeed by letting them know that breastfeeding is a good idea and that they are happy to feed their babies breast milk.

- The publication: *Feeding Infants: A Guide for Use in the Child Care Food Program* is an excellent resource available from your State agency or sponsor. They may also have information on how to keep breast milk safe and how to care for breastfed babies.

## Iron-Fortified Infant Formula

Iron-fortified infant formula is the best food for the baby when the baby is not being breastfed or when a supplement to breastfeeding is needed. Commercially prepared iron-fortified infant formula is specially formulated to have the right balance of nutrients and to be easily digested by the baby.

Program rules require that formula be an **iron-fortified infant formula**, intended for dietary use as a sole source of food for normal, healthy infants served in liquid state at the manufacturer's recommended dilution.

The formula label must state "with iron" or "iron-fortified." Formula labels which say "low iron" do not meet the meal pattern requirements. Low-iron or other formulas may be served only as a dietary substitute when a note from a medical doctor or other recognized medical authority, requiring its use, is on file.

## Milk

Contact your sponsor or State agency for further information on serving milk to infants.

## Sanitation, Food Preparation and Safe Food Handling

Babies are more susceptible to bacteria than older children. Unsanitary food conditions can cause serious illness or death. Take extra care when handling babies' food, bottles and utensils to make sure they are safe and clean. Thoroughly wash hands with warm soapy water before handling any food or bottles.

Proper hand washing can help prevent the spread of illness in child care settings. Hands should be washed after changing each baby's diaper and clothing. Diapers can be a major source of contamination and the spread of disease.

It is important to keep cold foods cold, and hot foods hot. When foods are out of a safe temperature zone, bacteria are more likely to grow and multiply. Contact your local health department for safe food storage temperatures.

## Bottle Feeding

### Purchasing Formula

- Select ready-to-feed formula because it is the most convenient and sanitary.
- Use either milk-based or soy-based formulas.
- Do not purchase cans of infant formula that have dents, bulges or rust spots.
- Check the expiration date on the formula lid or label to make sure the product is not too old.

Some State licensing agencies allow powdered formula to be used. In other States, only ready-to-feed liquid formulas can be served. If dry powdered or liquid concentrate is used, the formula must be mixed very carefully according to the directions on the container. Under-diluted formula (containing too little water) puts an excessive burden on the baby's kidneys and digestive system and may lead to dehydration. Over-diluted formula (containing too much water) may interfere with the baby's proper growth because it does not contain adequate calories and nutrients.

## Preparing Formula

Follow the steps below when preparing formula for infants.

1. Wash hands with soap and water.

2. Wash all equipment (nipples, bottles, rings and caps) in hot soapy water and scrub with a brush.

3. Rinse all equipment thoroughly in hot water.

4. Put nipples, bottles, rings and caps in a pot with enough water to cover them.

5. Boil for five minutes.

6. Wash hands with soap and water.

7. Wash the top of the formula can, then open.

8. Pour formula for one feeding into each clean bottle.

9. Put clean nipple on bottle and cover with a snap-on cap.

It is preferable that cold tap water or bottled water be used in the preparation of infant formula. Using hot tap water in the preparation of formula may lead to a high risk of lead exposure. Severe lead exposure can cause coma, convulsions and even death in children. Lower levels of lead exposure can cause adverse effects on a child's central nervous system and kidney. Lower levels of lead exposure also have been associated with decreased intelligence, growth, stature, hearing and a difficulty in maintaining a steady posture.

## Storing Formula and Breast Milk

- Refrigerate prepared bottles of formula for up to 24 hours.
- Open cans of formula should be covered, refrigerated and used within 48 hours.
- Expressed breast milk may be stored in the refrigerator or freezer in either sterilized bottles or disposable plastic nursing bags.
- Expressed breast milk will keep in the refrigerator for up to 48 hours or in the freezer for up to 2 weeks after the time it was collected. Be sure the milk is protected in an air-tight container while in the freezer. Once the milk is thawed, do not refreeze.
- Portions of breast milk or formula remaining in the bottle after a feeding should be discarded.

## Warming Bottles

For babies who prefer a warm bottle, warm bottles of breast milk, formula or whole milk immediately before serving.

To thaw frozen breast milk, hold bottle under cool to warm water. Shake bottle gently to mix. Do not refreeze breast milk.

Bottles may be warmed by setting them in a bowl of warm water or by holding under warm tap water. Test the temperature of milk or formula on the inner wrist before feeding to infants. If milk is too hot, wait a few minutes and repeat this test. Do not serve milk to infants that is too hot.

**Never use a microwave to warm bottles.** This practice is potentially dangerous for several reasons. Liquid in the bottle may become very hot when microwaved and get hotter after removing from the microwave even though the bottle feels cool. The hot liquid could seriously burn babies. Also, microwaving can destroy some of the nutrients in breast milk. Covered bottles may explode when heated in a microwave.

## Baby Foods

### Purchasing Commercially Prepared Baby Foods

For babies 6 to 12 months of age, choose baby foods that increase in thickness and consistency to challenge the baby to learn new mouth skills.

To meet the meal pattern requirements, avoid combination foods or dinners because it is difficult to determine the amount of each component in combination foods. Also, they generally have less nutritional value by weight than single-ingredient foods and cost more than items purchased separately.

Read the ingredient list on the food label carefully. Avoid those with added fat, salt, sugar, modified corn starch or modified tapioca starch.

Desserts, such as baby puddings, custards, cobblers and fruit desserts, should be avoided because they are high in sugar. Babies do not need added sugar. They should be given the opportunity to eat naturally sweet foods, such as fruit.

Fruit juices containing 100% juice are creditable at snacks only for infants eight through eleven months old. No other juices or juice drinks are creditable.

Iron-fortified infant cereals must be provided until the infant turns one year of age. Other non-infant cereals can be served as additional foods.

### Serving Commercially Prepared Baby Food

- Be sure the vacuum seal has not been broken before using. The jar should "pop" when opened.
- Do not use the baby food jar as a serving dish. Remove the amount of food needed to feed the baby from the jar and put it in a dish for serving.
- Throw away any leftover food. Do not put it back into the jar because it could cause contamination.
- Once the jar is opened, store it in the refrigerator. Food should be used as soon as possible, but at least within two to three days.

### Preparing Baby Food at Home

Preparing homemade baby food has several advantages. It is more economical and the provider can ensure the quality of the food.

Commercial baby foods may lack enough texture for the older baby. The texture can be modified when homemade baby food is prepared.

When preparing homemade baby food, follow these steps.

- Make sure hands, utensils, work space and the food are all very clean.
- Begin with good quality food. Use fresh food whenever possible.
- Remove skins, pits and seeds from fruits and vegetables. Cut away all fat, gristle, skin and bones from meat, poultry and fish.
- Cook foods until they are soft and tender. To minimize vitamin loss, steam fruits and vegetables. Roast, simmer or braise meat.
- Modify the texture by mashing food with a fork, grinding with a food grinder or by pureeing in a blender.

## Foods That Cannot Be Credited

Foods that cannot be credited toward the infant meal pattern include:

- foods with water listed as the first ingredient
- combination foods or dinners
- baby desserts
- fruit juice and juice drinks other than 100% fruit juice
- vegetable juice
- "adult" cereals

## Foods to Avoid or Limit

Some foods which commonly cause allergic reactions in infants should not be served during their first year. These include chocolate, citrus fruits, egg whites, honey and shellfish.

Honey should never be served to infants because it may contain botulism spores. The spores can cause severe food poisoning. After digestive systems mature, honey can be tolerated.

Sugar and fat should not be added to infant foods to provide flavor. It is best for children to develop a liking for the natural flavors of foods.

Infants can choke on foods, such as frankfurter rounds, popcorn, grapes, peanut butter or nuts. Furthermore, foods should be cut length-wise, rather than in circles, to prevent choking.

## Baby Bottle Tooth Decay

Baby bottle tooth decay can occur when babies regularly fall asleep with bottles in their mouths. To prevent baby bottle tooth decay:

- Feed only breast milk, formula, milk or water from a bottle. Never put juice, soda pop or other sweetened drinks in a bottle. Serve juice in a cup.
- Offer the bottle only at feeding time, not at nap time. If a baby falls asleep during feeding, move the baby around a bit to stimulate swallowing before putting the baby down to sleep.
- Do not use a bottle of cold juice to soothe a teething baby's gums. Instead, use a clean favorite rattle or teething ring that has been cooled in the refrigerator or freezer.

# Handling Foods for Safety

## Food Handling

The United States has one of the safest food supplies in the world. However, there are still more than two million cases of food-borne illness (food poisoning) reported each year. Many cases of food-borne illness are not reported because they are confused with the "flu".

People who have food-borne illness usually feel sick for just a few days. Some individuals though, especially babies, small children and the elderly, may be more severely affected. In very severe cases, food-borne illness can require hospitalization and may even cause death.

Food-borne illnesses are caused by bacteria. Bacteria cannot be seen, tasted or smelled. They hide on bodies, in the air, on kitchen counters and on utensils; bacteria are even in food. Just because bacteria are in food does not make the food unsafe to eat. Bacteria need a chance to grow before they become dangerous. Proper food handling practices reduce the likelihood that bacteria will be allowed to grow and contaminate the food.

## Helpful Hints for Food Safety

Some important points to remember about food safety include:

- Food can spoil because of mishandling or improper storage.
- Bacteria from hands, utensils and work areas can contaminate food.
- Bacteria grow quickly between 40° F - 140°F. This is known as the **danger zone**. As food is held in the danger zone for an extended period of time, more and more bacteria will grow causing greater risk of food-borne illness.
- Keep **hot** food **hot** (above 140°F).
- Keep **cold** food **cold** (below 40°F).
- Bacteria in undercooked food can cause food-borne illness. These bacteria are killed when food is cooked or re-heated to at least 165°F

## Utensils and Equipment

All eating and drinking utensils must be properly handled. Utensils used for cooking should never be used for tasting. Also, cracked or chipped utensils should not be used. All appliances and equipment should be kept clean and in good working condition. Use only dish washing equipment that meets local health agency standards.

## Purchasing and Storing Food

Examine all foods when delivered to make sure they are not spoiled, dirty or contaminated. Make sure frozen food is frozen when delivered. Do not accept frozen food that has thawed.

Refrigerate food immediately. Do not let refrigerated or frozen foods sit at room temperature.

Use foods on a "first-in, first-out" basis to prevent spoilage and food waste.

Store foods, such as flours, cereals, cornmeal, sugar, dry beans and dry peas in tightly covered containers to prevent rodent and insect infestation.

Do not overload containers when heating and cooling foods. Use small, shallow pans so food will heat or cool quickly.

Throw out foods that are served but not eaten.

## Preparing Food

Do not allow people with infected cuts or sores, colds or other communicable diseases to prepare or serve food.

Wash hands thoroughly with soap and water before handling foods or utensils. Repeat after every visit to the rest room.

Wash hands, utensils and work surfaces thoroughly after contact with raw eggs, fish, meats or poultry.

Thoroughly wash all fruits and vegetables that will be served raw, such as lettuce, celery, carrots, apples and peaches.

Cook foods properly, following standardized procedures and recipe directions.

## Ways to Recognize Food Spoilage

| These Foods: | Are Risky When: |
|---|---|
| Fresh Poultry | Stored raw in the refrigerator for longer than 1-2 days (3-4 days when cooked).<br>Left unrefrigerated for more than 2 hours either before or after cooking. |
| Fresh Meat | Stored raw in the refrigerator for longer than 3-5 days (1-2 days for hamburger).<br>Discolored, smelly or slimy.<br>Left unrefrigerated for more than 2 hours either before or after cooking. |
| Fresh Fish | Stored for longer than 1-2 days in the refrigerator.<br>Dried at edges; smelly.<br>Left unrefrigerated for more than 2 hours either before or after cooking. |
| Milk, Cream, Egg Products | Left unrefrigerated for more than 2 hours. |
| Frozen Meats, Poultry, Fish or Casseroles | Thawed at room temperature.<br>Allowed to thaw and be refrozen.<br>Eaten without thorough cooking. |
| Canned Foods<br><br>*Home canned foods should **never** be served in child care centers or day care homes.* | Liquid spurts out when can is opened.<br>Can is corroded, rusty, leaky, swollen on top or bottom or dented on side seams.<br>Contents have off-odors or a foamy or mushy texture.<br>Stored at hot temperatures or allowed to freeze and thaw. |
| Fresh Fruits or Vegetables | Unwashed, moldy, soft or discolored. |
| Bread Products | Moldy.<br>Infested with insects. |

*If in doubt, throw it out.*

# Notes:

# Serving Ethnic Foods

## Considering Ethnic Differences

The United States of America is a land of people with diverse cultural and ethnic backgrounds. People from a given culture tend to have experiences that are culturally patterned and similar in nature, although not identical. There are variations within each cultural group depending on socioeconomic status, social class, religion, age, education, location, and the length of time family members have lived in the United States.

Cuisines of a country are especially influenced by the country's geography, climate and history. People of different countries and in some cases, different regions, have their own unique and customary foods and ways of combining the foods into meals.

Some ethnic groups are African Americans, Hispanics, Asian/Pacific Islanders and Native Americans. As the populations of these ethnic groups continue to increase, it is more likely that child care providers will be faced with the challenge of providing meals and nutrition education to persons of cultures that may be quite different from their own.

This section is intended to stimulate awareness of, respect for, and acceptance of various cultural groups. It is not intended to stereotype persons or imply that all people from the same group are identical. The foods of various cultural groups are addressed. Common foods and information on eating habits are listed by cultural group. These lists are not comprehensive. Examples of foods are provided to show the importance of cultural sensitivity and to help persons recognize foods which may be common to a particular group.

Parents and community groups are excellent sources for information on cultural values and eating habits. A list of references is also included in this section.

# African Americans

African Americans include people having origins in the black racial groups of Africa. Africa is a large continent with a wide variety of soils, climates, people and economic conditions. African Americans have adapted their eating habits over the years. Foods eaten by African Americans are different than those of their ancestors in Africa.

Typically, African American diets provide adequate fiber, protein and calories. Diets are commonly low in calcium, iron and vitamin $B_{12}$, and are generally high in fat (especially saturated fat) and salt.

### Milk

- Lactose intolerance is common.

### Meat and Meat Alternates

- Pork is a common meat, especially variety cuts, chitterlings, ham hocks and sausages.
- Fish (catfish, crab, crayfish, perch, red snapper, salmon, sardines, tuna), small game and poultry are commonly eaten.
- Veal and lamb are not popular.
- Bean dishes are common. These dishes may include: black-eyed peas, kidney beans, pinto beans or red beans.
- Meats are commonly fried, boiled or barbecued.

### Breads and Bread Alternates

- Corn is the primary grain product for foods such as cornbread or hushpuppies. Wheat flour is used in many baked goods.
- Rice is used in stew-type dishes.
- Grits are popular.

### Fruits and Vegetables

- Green leafy vegetables are cooked with ham, salt pork, bacon, lemon or hot sauce.
- Beets, broccoli, cabbage, corn, green peas, okra, potatoes, squash, sweet potatoes and yams are commonly eaten vegetables.
- The intake of fresh fruits and vegetables is low in African American diets.

# Hispanic Americans

Hispanic Americans include persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish descent, regardless of race.

Diets provide adequate protein and fiber. Diets are commonly high in fat, especially saturated fat. Intakes of vitamin A, iron and calcium are low. Due to the large consumption of sweetened beverages, sugar intake may be high.

## Mexicans

### Milk

- Milk (cow or goat) and evaporated milk are served.
- Lactose intolerance is common.

### Meat and Meat Alternates

- Beef, lamb, pork (including variety cuts), chorizo (spicy sausage), chicken and turkey are common.
- Popular fish and seafood include camarones (shrimp) and huachinango (red snapper or other firm fleshed fish).
- Black beans, garbanzo beans, chick peas, pinto beans, kidney beans and pigeon peas are commonly prepared.

### Bread and Bread Alternates

- Common bread products are masa harina, tortillas (flour or corn), breads, rolls, empanadas, sopa, pan dulce (sweet bread/pastry), fideo (pasta), rice and tamales.

### Fruits and Vegetables

- Vegetables are served usually as part of the main dish, not separately.
- Vegetables such as nopalitos (cactus), chilis, corn, jicama, onions, peas, potatoes, squashes, tomatillos, tomatoes, yucca and peppers are common.
- Avocados, bananas, chirimoya, coconut, granadilla (passion fruit), guava, lemons, limes, mangoes, tuna (cactus fruit), nopales (cactus), oranges, papaya, pineapple, strawberries, sugar cane, tamarindo and zapote are popular fruits.

## Caribbean Islanders

**(Dominicans, Puerto Ricans, Cubans)**

### Milk

- Cow's milk is common.

### Meat and Meat Alternates

- Beef, pork (including intestines, organs and variety cuts), goat, poultry, fish and shellfish (bacalao - dried salt cod, barracuda, bonita, butterfish, crab, dolphin, salmon, snapper, tarpon, turtle) are prepared commonly.
- Beans, including black beans, black-eyed peas, garbanzo beans, kidney beans, lima beans, red beans and soy beans, are commonly served.

### Bread and Bread Alternates

- Popular bread products include cassava bread, cornmeal breads (fried breads, surrulitos, puddings), oatmeal, rice (short-grain), breads and pasta.

### Fruits and Vegetables

- Common tropical fruits are acerola cherries, akee, avocados, bananas, plantains, breadfruit, star apples, citron, custard apple, passion fruit, guava, kumquats, mangoes, raisins, sapodilla, sugar cane and tamarindo.
- Arrowroot, broccoli, cabbage, calabaza (green pumpkin), callaloo (malanga or tara leaves), egg plant, okra, onions, peppers, plantains, potatoes, squash, sweet potatoes, tomatoes and yucca are often served.

# Asian and Pacific Islanders

Asian and Pacific Americans originate from the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This includes China, Japan, Korea, the Philippine Islands and Vietnam.

Foods eaten are low in fat and provide abundant nutrients. Diets may be high in sodium depending on the cooking sauces used. Diets may lack calcium.

## Chinese

### Milk

- Many Chinese are lactose intolerant and, traditionally, dairy products are not used.

### Meat and Meat Alternates

- Beef, lamb, pork, chicken, duck, quail, squab, fish (bluegill, carp, catfish, cod, minnow, tuna) and shellfish (abalone, clams, conch, crab, mussels, shark's fin, squid, shrimp, turtle) are prepared.
- Preservation of meats and fish by salting and drying is common.
- Shrimp and beans are often made into pastes. Beans that are used include: black beans (wow doo), broad beans, cowpeas, mung beans, red beans, soy beans and white beans. Bean curd is common.

### Bread and Bread Alternates

- Rice is a staple.
- Rice cakes, noodles, wonton and egg roll wrappers are popular.
- Congee, a thick rice gruel, is a breakfast mainstay.
- Wheat bread is becoming more popular.

### Fruits and Vegetables

- A variety of fruits, often slightly unripe, are served for dessert.
- Vegetables prepared include: amaranth, asparagus, jook suen (bamboo shoots), banana squash, bean sprouts, bitter melon, bok choy and napa (cabbage), Chinese long beans, flat beans, (san geung (ginger root), jujubes, kohlrabi, leeks, gum jum (lily blossoms), lien gow (lotus root and stems), doon gwooh (mushrooms), haw laahn dow (snow peas), seaweed, taro, chung choy (salt preserved turnips), watercress, yams and yam beans.
- Vegetables are often pickled and preserved.

## Japanese

### Milk

- Many Japanese are lactose intolerant.

### Meat and Meat Alternates

- Soy bean products and a wide variety of fish and shellfish (tempura - batter-dipped and fried fish) are the primary protein sources.
- Beans used include black beans, red beans, lima beans and soy beans.
- Fish and shellfish are often eaten raw.
- Beef (sukiyaki - roasted beef with vegetables and sauces), (yakitori - spit-roasted meats on skewers), deer, lamb, rabbit, veal, poultry (capon, chicken, duck, goose, partridge, pheasant, quail, thrush, turkey) and fish (blowfish, bonita, bream, carp, cuttlefish, eel, flounder, herring, mackerel, shark, sillago and turbot) are served.

### Bread and Bread Alternates

- Short grain rice is a staple food.
- Buckwheat noodles may be served.
- Sushi (vinegared or sweet-and-sour cooked rice wrapped around bite-sized foods) is popular.

### Fruits and Vegetables

- Common fruits include apples, apricots, dates, figs, grapefruit, kumquats, lemons, limes, loquats, nijusiki (pear apples), persimmons and natsumikan (summer mandarin).
- Artichokes, asparagus, bamboo shoots, beans, bean sprouts, brussel sprouts, burdock root, cabbage, carrots, chickweed, eggplant, mushrooms (shitake, shoro, kotake, shimeji, and hatsudake), onions, ferns, ginger and pickled ginger, seaweed, lotus root, okra, snow peas, watercress and daikon (white radishes) are popular vegetables.

## Filipino

### Milk

- Evaporated and fresh milk (goat or carabao) are the most common dairy products.
- Many Filipinos are lactose intolerant.

### Meat and Meat Alternates

- Beef, goat, pork, variety meats, rabbit, poultry (chicken, duck, pigeon, sparrow), fish and shellfish (anchovies, bonita, carp, catfish, crab, crayfish, cuttlefish, mussels, sea urchins, shrimp, sole, squid and swordfish) are common.
- Beans, such as black beans, black-eyed peas, chick peas, lentils, lima beans, mung beans, red beans, soy beans, and white kidney beans are often sources of protein.
- Many small dried salt fish called dilis and daing are eaten.

### Breads and Bread Alternates

- Rice is eaten at almost every meal.
- Oatmeal, rice (long and short grain), rice and wheat noodles, pancit (noodle made from rice, wheat and mung beans) and pan de sol (bread made from rice flour) are sometimes served.

### Fruits and Vegetables

- Commonly eaten fruits include apples, avocados, bananas, banana blossoms, breadfruit, calamansi (lime), citrus fruit, coconut, durian, grapes, guava, litchi, mangoes, melons, pomelo, papaya, pears, persimmons, pomegranates, sugar cane, tamarind and watermelon.
- A variety of vegetables are eaten, including bamboo shoots, bean sprouts, beets, bitter melon, cabbage, carrots, cashew nut leaves, cassava, cauliflower, heart of palm, green papaya, hyacinth bean, leeks, lettuce, long green beans, spineless amaranth, sponge gourd, squashes, swamp cabbage, sweet potatoes, taro leaves and roots, water chestnuts and winged beans.

## Mainland Southeast Asian, including Vietnam

### Milk

- Soy and coconut milks are used.
- Lactose intolerance is prevalent.

### Meat and Meat Alternates

- Beef, lamb, pork, poultry and small birds (quail, pigeon, sparrow) and fresh and saltwater seafood (often dried) are sources of protein.
- Chick peas, lentils, mung beans (black and red), soy beans and soy bean products, including tofu, are common.

### Bread and Bread Alternates

- Rice is usually eaten at every meal.
- Arrowroot may be served.

### Fruits and Vegetables

- Fruits including apples, bananas, cantaloupe, coconut, custard apples, dates, figs, grapefruit, guava, jackfruit, jujube, lemon, lime, litchi, longans, papaya, pears, persimmons, pineapple, pomegranates, pomelo, rambutan,

sapodilla, star fruit, soursop and tamarind are popular.

- Vegetables commonly eaten include artichokes, asparagus, bamboo shoots, banana leaves, bitter melon, breadfruit, cabbage (domestic, Chinese, savoy and Napa), calabash, carrots, cassava, celery, chard, daikon, chrysanthemum, leeks, lotus root, matrimony vine, mushrooms, okra, peas, pumpkin leaves, spinach, taro, water lily greens, winged beans and yams.

## Hmong

### Milk

- Lactose intolerance is common.

### Meat and Meat Alternates

- Beef, pork, chicken, eggs, fish, duck and baby quail are eaten.
- Tofu (soybean curd) is served.

### Bread and Bread Alternates

- Rice, including sweet (or sticky) rice, is eaten at almost every meal.
- Noodles and egg roll wrappers are occasionally served.

### Fruits and Vegetables

- Popular vegetables include cabbage, bok choy, bean sprouts, leafy greens, mushrooms, radishes, lotus root, watercress, cheyote squash and peppers.
- Tropical fruits, such as mangoes, papayas and pineapple are common.

## Native Americans

Native Americans include people with origins from any of the original people of North America. They usually maintain cultural identification through tribal affiliation.

Native American foods differ from region to region and tribe to tribe.

Diets are rich in protein and many nutrients. They tend to be high in calories and fat. Diets are commonly low in calcium.

### Milk

- Lactose intolerance is common.

### Meat and Meat Alternates

- Because hunting and fishing are popular, game meats* (buffalo, deer, elk, moose and rabbit), poultry and small birds (duck, goose, grouse, pheasant, quail and wild turkey), and fish (bass, catfish, clams, cod, crab, flounder, perch, smelt, trout and others) are commonly eaten.
- Meat is highly valued and is considered healthy.
- Kidney, navy and pinto beans are commonly prepared.

** Meats must be inspected by local, State or Federal authorities to be creditable.*

### Bread and Bread Alternates

- Commonly eaten breads and grains include cornmeal breads, gruels, corn tortillas, toasted corn and wild rice.

### Fruits and Vegetables

- Berries, cherries, currants, grapes, muskmelons, plums and rhubarb are traditional fruits of Native Americans.
- Other fruits, not native to America, are used.
- Vegetables eaten include camass root, chilis, fiddleheads, mushrooms, onions, potatoes, pumpkins, squash, sweet potatoes, dandelion, ferns, watercress and wild turnips.

## Jewish Americans

Jewish Americans are primarily from Middle Eastern and European countries. The Jewish religion, Judaism, includes the dietary laws of Kashrut, or keeping Kosher. Some families closely follow these laws, others may not.

The Jewish laws of Kashrut stipulate which foods are kosher (fit to eat according to Jewish Dietary Law) and non-kosher. Dairy products may not be combined in food preparation or served at the same meal as meat or poultry products. Dairy products can be served in the same meal as other meat alternates, such as cheese, eggs, dry beans and peanut butter.

Examples below are for European Jews.

### Milk

- When keeping kosher, dairy products are prohibited from being served with meat, poultry or fish.

### Meat and Meat Alternates

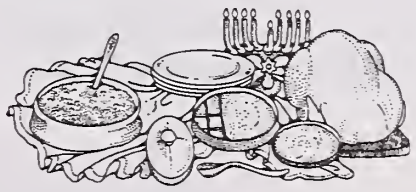
- Kosher beef, kosher poultry, herring, lox, sardines, lamb, gelfite (fish) and chopped liver are common.
- Pork, scavenger fish and shellfish are prohibited.

### Bread and Bread Alternates

- Matzoh, unleavened bread, bagels, rye and pumpernickel breads, kasha, egg breads, noodle kugel and challah are served.

### Fruits and Vegetables

- Dried fruit, such as raisins, figs, dates, compotes (stewed dried fruit), chalsa (apple-raisin spread), grapes, citrus fruits and apples are common.
- Popular vegetable dishes include broccoli, potato kugel, thick vegetable soups and fried potato latke.



## Holidays

Celebrating holidays throughout the year is a wonderful way to increase children's understanding of different cultures. Ethnic foods, music, clothing, books and videos can be part of celebrations. Holidays that can be observed include:

**January/February**
Chinese New Year (January)
Martin Luther King, Jr. Day (January)
Black History Month (February)

**March/April**
St. Patrick's Day (Irish holiday, March 17)
Passover (Jewish holiday)
Easter (Christian holiday)

**May/June**
Asian American Month (May)
Cinco de Mayo (Mexican holiday, May)
African American Independence Day (June 19)

**July/August**
Canada Day (July 1)
Independence Day (American holiday, July 4)
Bastille Day (France, July 14)

**September/October**
Mexican Independence Day (September 16)
Hispanic American Month (September 15 - October 15)
American Indian Heritage Month (October)
Mexican Heritage Day (October 12)

**November/December**
Dia de los inocentes, "Day of the Children" (Hispanic holiday, November 2)
Thanksgiving (American holiday, November)
Christmas (Christian holiday, December 25)
Hanukkah (Jewish holiday, December)
Kwanzaa (African American holiday)

## References

*Ethnic and Regional Food Practices: Chinese American*, American Dietetic Association and American Diabetes Association.

*Ethnic and Regional Food Practices: Hmong American*, American Dietetic Association and American Diabetes Association.

*Ethnic and Regional Food Practices: Jewish*, American Dietetic Association and American Diabetes Association.

*Ethnic and Regional Food Practices: Mexican American*, American Dietetic Association and American Diabetes Association.

*Ethnic and Regional Food Practices: Navajo*, American Dietetic Association and American Diabetes Association.

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# Evaluating Recipes and Purchased Food Products

*This section is intended to be a resource for Child and Adult Care Food Program personnel who desire detailed information on crediting recipes or processed foods.*

## Tips for Evaluating a Recipe

To determine whether a recipe can be credited and how it contributes to the meal pattern, the recipe must provide specific information about its ingredients. For example, a recipe should state:

- 1-**15 oz** can of fruit cocktail, not 1 can of fruit cocktail
- 3 cups **cooked** rice, not 3 cups rice
- **1/2 cup finely or coarsely chopped** onions, not 1 small onion

## Abbreviations

tsp or t . . . . . teaspoon
Tbsp or T . . . . tablespoon
c . . . . . cup
oz . . . . . ounce
fl oz . . . . . fluid ounce
lb or # . . . . . pound
pt . . . . . pint
qt . . . . . quart
gal . . . . . gallon
wt . . . . . weight
No. . . . . number
pkg . . . . . package
$^{o}$F . . . . . degrees Fahrenheit

## Common Measures and Equivalents

3 tsp = 1 T
2 T = 1/8 c
4 T = 1/4 c
5-1/3 T = 1/3 c
8 T = 1/2 c
16 T= 1 c
1 oz = 28.3 g
4 oz = 1/4 lb
8 oz = 1/2 lb
12 oz = 3/4 lb
16 oz = 1 lb
2 c = 1/2 qt
4 c = 1 qt
8 c = 1/2 lb
1 pt = 2 c
2 pt = 1 qt
2 qt = 1/2 gal
4 qt = 1 gal

On the following pages is a table of weights of one cup of commonly used ingredients. This chart is helpful for determining the crediting of many homemade foods. To find the weight of a fraction of one cup, follow the directions in the table below.

| Multiply the weight of one cup by: | To find the weight of: |
|---|---|
| 0.75 | 3/4 cup |
| 0.66 | 2/3 cup |
| 0.50 | 1/2 cup |
| 0.33 | 1/3 cup |
| 0.25 | 1/4 cup |
| 0.12 | 1/8 cup |

## Weights of One Cup of Commonly Used Ingredients

The use of company or product names does not imply approval or endorsement of products by the USDA.
Product names are given only for clarification.

| Food Item | Type | Weight of One Cup (grams) |
|---|---|---|
| applesauce | canned | 257 |
| bananas | mashed | 226 |
| | sliced | 145 |
| carrots | fresh, diced | 144 |
| | fresh, shredded | 145 |
| | fresh, strips | 121 |
| cereals | all-bran | 61 |
| | bran buds | 75 |
| | cheerios | 29 |
| | corn chex | 89 |
| | corn flakes, crushed | 80 |
| | corn flakes, whole | 29 |
| | puffed rice | 13 |
| | rice chex | 33 |
| | rice krispies | 88 |
| | wheaties | 98 |
| cheese | cottage, cream style | 233 |
| | cheddar, diced | 132 |
| | cheddar, shredded | 98 |
| | mozzarella, chopped | 112 |
| chocolate chips/flavored chips | | 167 |
| cocoa | | 86 |
| coconut | flakes | 88 |
| | shredded | 93 |
| corn syrup | light or dark | 325 |
| cream | half and half | 242 |
| | sour | 242 |

## Weights of One Cup of Commonly Used Ingredients

The use of company or product names does not imply approval or endorsement of products by the USDA.
Product names are given only for clarification.

| Food Item | Type | Weight of One Cup (grams) |
|---|---|---|
| | whipping | 232 |
| eggs, large - one egg | whole | 50 |
| | white | 33 |
| | yolk | 17 |
| flour, wheat, all-purpose | unsifted, dipped | 143 |
| | unsifted, spooned | 126 |
| | sifted, spooned | 116 |
| flour, wheat, bread | unsifted, dipped | 136 |
| | unsifted, spooned | 123 |
| | sifted, spooned | 117 |
| flour, wheat, self-rising | unsifted, dipped | 130 |
| | unsifted, spooned | 127 |
| | sifted, spooned | 106 |
| flour, whole wheat | stirred, spooned | 120 |
| flour, rye, dark | unstirred, spooned | 128 |
| | stirred, spooned | 127 |
| flour, rye, light | unsifted, spooned | 101 |
| | sifted, spooned | 88 |
| honey | strained | 325 |
| margarine | regular | 225 |
| | soft | 208 |
| milk | fresh, fluid | 241 |
| milk, whole | evaporated, canned | 251 |
| milk, nonfat, dry | instant | 74 |
| milk, skim | evaporated, canned | 246 |
| milk, buttermilk | fresh, fluid | 246 |
| molasses | | 309 |
| oats, quick (not instant) | uncooked | 73 |
| | cooked | 246 |

## Weights of One Cup of Commonly Used Ingredients

The use of company or product names does not imply approval or endorsement of products by the USDA. Product names are given only for clarification.

| Food Item | Type | Weight of One Cup (grams) |
|---|---|---|
| oil, cooking | | 209 |
| peanut butter | crunchy | 251 |
| peanut butter | smooth | 251 |
| pumpkin | fresh, cooked, mashed | 247 |
| | canned | 238 |
| raisins | chopped | 162 |
| | whole | 144 |
| shortening, hydrogenated | | 187 |
| sugar | brown, packed | 211 |
| | confectioners, unsifted | 113 |
| | confectioners, sifted | 95 |
| | granulated | 196 |
| walnuts | chopped | 120 |
| zucchini | fresh, uncooked, sliced | 164 |

Taken from: *Average Weight of a Measured Cup of Various Foods*, Home Economics Research Report No. 41, USDA.

# Crediting Homemade Bread Products

The following steps can be followed if you want to determine crediting of homemade bread products such as quick breads, cookies, pancakes or muffins.

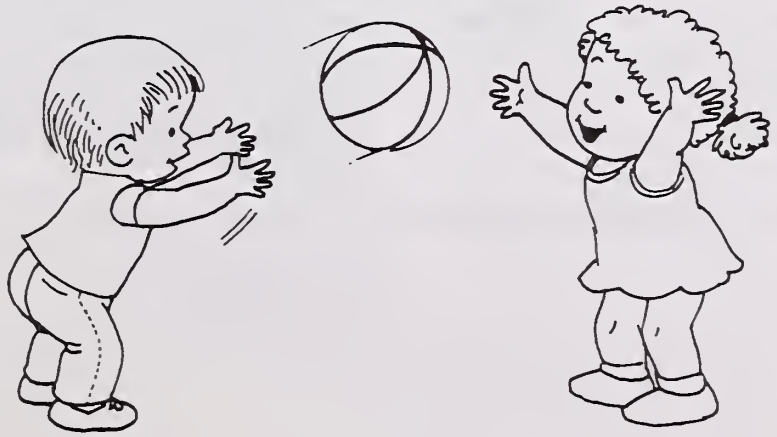
**Step 1**: Find the total weight of the flour/grains in the product. Refer to the preceding table, "Weights of One Cup of Commonly Used Ingredients."

**Step 2**: Determine the weight of the other major ingredients (sugar, butter, etc.). Refer to the preceding table, "Weights of One Cup of Commonly Used Ingredients."

**Step 3**: Compare the total weight of the flour/grains (step 1) to the weight of each ingredient (step 2). Bread and bread alternates can be credited toward the meal pattern if flour/grains weigh more than each of the other ingredients. Some foods, such as pancakes or crepes, can be credited even though liquid outweighs flour/grain because the liquid evaporates during cooking.

**Step 4**: If flour/grain is the primary ingredient by weight, find the number of servings the recipe yields. This is done by dividing the total weight of the flour/grains by 15.5 grams (weight of flour in 1 serving of bread). The resulting figure is the number of servings for children six through twelve years of age. One serving for children 6-12 years of age is equal to two servings for children under six years old.

On the next two pages are examples of muffin and fudge brownie recipes that were evaluated following this step-by-step method.



## Example 1: Evaluating Homemade Muffins (creditable)

### Ingredients

1-3/4 c enriched, all-purpose flour, unsifted
1/4 c sugar
2-1/2 t baking powder
1 large egg
3/4 c fluid milk
1/3 c vegetable oil

**Step 1**: Determine the total weight of the flour/grains in the product.

- **flour** (1-3/4 cups or 1.75 cups flour)
  1 cup of flour = 126 grams
  1-3/4 cups flour = 220.5 grams
  (1.75 x 126 = 220.5)

**Step 2**: Determine the weight of each of the other major ingredients in the recipe.

- **sugar** (1/4 or 0.25 cup)
  1 cup sugar = 196 grams
  1/4 cup sugar = 49 grams
  (0.25 x 196 = 49)

- **egg** (1 egg)
  1 egg = 50 grams

- **milk** (3/4 or 0.75 cup)
  1 cup milk = 241 grams
  3/4 cup milk = 180.8 grams
  (0.75 x 241 = 180.8)

- **vegetable oil** (1/3 cup oil or 0.33 cup)
  1 cup oil = 209 grams
  1/3 cup oil = 69.7 grams
  (0.33 x 209 = 69.7)

**Step 3**: Compare the total weight of the flour/grains to the weight of each of the other ingredients.

**Flour in the recipe = 220.5 grams**

compare to:

sugar = 49 grams
egg = 57 grams
milk= 180.8 grams
oil= 69.7 grams

The weight of the flour/grains is greater than the weight of each of the other ingredients compared individually. Therefore, these muffins can be credited toward the bread/bread alternate component of the meal pattern.

**Step 4**: Find the number of servings a recipe yields for the age group(s) being served.

- The weight of the flour is divided by **15.5 grams**:

  total weight of flour = 220.5 grams
  220.5 grams divided by 15.5 grams = 14.23

- Round 14.23 down to the nearest whole number (14.23 rounds down to 14)

This recipe yields 14 servings for children six through twelve years of age or 28 servings for children three through five years old. Usually, one muffin is equivalent to one serving for children six through twelve years of age and two servings for children three through five years old.

## Example 2: Evaluating Homemade Fudge Brownies (not creditable)

### Ingredients

2 c sugar
1 cup flour
1/2 cup butter
4 eggs
4 oz chocolate
1/4 teaspoon salt
1 teaspoon vanilla

**Step 1:** Determine the total weight of the flour/grains in the product.

- **flour** (1 cup flour)
  1 cup flour = 126 grams

**Step 2:** Determine the weight of each of the other major ingredients in the recipe.

- **sugar** (2 cups)
  1 cup sugar = 196 grams
  2 cups sugar = 392 grams
  (2 x 196 = 392)

- **butter** (1/2 cup)
  1/2 cup butter= 1/4 pound
  1/4 pound = 4 oz
  4 oz x 28.3 g = 113.2 g
  (1 oz = 28.3 grams)

- **eggs** (4 eggs)
  1 egg = 50 grams
  4 eggs = 200 grams.
  (50 x 4 = 200)

**Step 3:** Compare the total weight of the flour/grains to the weight of each of the other ingredients.

**Flour in the recipe = 126 grams**

compare to:

sugar = 392 grams
butter = 113.2 grams
eggs = 200 grams

Flour is not the primary ingredient by weight. In this recipe, sugar and eggs weigh more than flour. Therefore, fudge brownies made following this recipe cannot be credited as a bread/bread alternate because flour/grain is not the primary ingredient by weight.

| It takes: | To outweigh: |
|---|---|
| 1- 1/4 c all-purpose flour | 1 c fresh blueberries |
| 1- 1/2 c all-purpose flour | 1 c chocolate chips or<br>1 c raw, sliced zucchini |
| 1- 3/4 c all-purpose flour | 1 c granulated sugar |
| 2 c all-purpose flour, unsifted | 1 c canned pumpkin or 1 cup of mashed bananas |

Sugar, blueberries, chocolate chips, zucchini, pumpkin and bananas are commonly used in homemade bread products. Refer to the table on the left to quickly determine the amount of flour needed to outweigh these and other common ingredients.

## Crediting Commercial Bread Products

Purchasing ready-made bread products can save time. The following information will help in the selection of creditable products and correct serving sizes.

- Whole-grain or enriched meal or flour must be listed first in the ingredient list on the label.
- Turn to the table in "Crediting Foods" and find the bread group (A, B, C, or D) for the product. Note the serving size that is required for the age group(s) being served.

## Meeting the Meal Pattern Requirements

A meal component can consist of one or more creditable foods.
***For lunches or suppers served to children three through five years old:***

- At least 1/4 oz of meat/meat alternate must be served to count toward the meat/meat alternate requirement (1.5 oz meat/meat alternate).
- At least 1/8 cup of fruit or vegetable must be served to count toward the fruit/vegetable requirement (1/2 cup fruit and/or vegetable). Any amount less than 1/8 cup is considered a garnish.
- At least 1/4 slice of bread or its equivalent must be provided to count toward the bread/bread alternate requirement (1/2 slice equivalent).
- A full serving of milk must be served to count toward the milk requirement (3/4 cup fluid milk).

## Portion Sizes

Consider the serving size of menu items when planning meals to meet the meal pattern. A small amount of food can often satisfy a young child's appetite.

Some foods will meet the meal pattern requirements only when very large serving sizes are provided. When large serving sizes are needed, foods should be supplemented with another food. For example, it is recommended that peanut butter be served with an additional meat/meat alternate component, such as cheese, to meet the meat/meat alternate requirement for lunch or supper.

## Combination Dishes

Dishes that contain foods from more than one food group are combination dishes. It is recommended that combination dishes be credited for only one or two meal pattern components. This is to ensure that children do not go hungry when a dish is disliked. For example, if lasagna were to contribute toward the meat/meat alternate, the fruit/vegetable and the bread/bread alternate components, and if a child disliked or did not eat the lasagna, he or she would not receive a sufficient amount of food.

# Recipe Analysis

The following worksheet was used to determine the crediting and yield of a chili mac recipe for children three through five years of age. A blank worksheet appears on the next page.

| Ingredients | Amount | Meat/Meat Alternate | Fruit/ Vegetable (1/4 cup) | Bread/Bread Alternate (1/2 slice bread or equivalent) | Milk (served as a beverage) |
|---|---|---|---|---|---|
| *ground beef* | 1 pound | 11.5 ounces | | | |
| *elbow macaroni* | 8 ounces | | | 19 | |
| *tomato sauce* | 2-8 ounce cans | | 7.6 | | |
| *cheese, grated* | 1/2 cup | 2 ounces | | | |
| *green pepper, chopped* | 1/4 cup | | 0.73 | | |
| *onion, chopped* | 1/4 cup | | 0.88 | | |
| | **Total** | 13.5 ounces | 9.21 1/4 cup servings | 39 servings | |
| | **Calculations** | 13.5 ÷ 1.5 = 9* | | | |
| | **Number of Servings** (for children 3-5 years old) | 9 1-1/2 ounce servings | 9 1/4 cup servings | 19 1/4 cup servings | |

*To determine the number of 1-1/2 ounce servings of meat/meat alternate for children 3-5 years old, divide the total ounces by 1.5. Divide the total ounces by 2 to determine the number of 2 ounce servings for children 6-12 years of age.

**Instructions:**

1. List all the ingredients in the left hand column and the amount of each ingredient in the second column.
2. Find each ingredient in the list of foods and yields which follows or in the Food Buying Guide for Child Nutrition Programs (PA-1331). Record the yield of meat/meat alternate in ounces, the yield of fruit/vegetable in 1/4 cup servings and the yield of bread/bread alternate in 1/2 slice bread or the equivalent.
3. Determine the number of 1.5 ounce meat/meat alternate servings for children 3-5 years old by dividing the total by 1.5. Divide the total by 2 to find number of 2 ounce servings provided for children 6-12 years old.
4. Round the total for fruit/vegetables and bread/bread alternate down to the nearest whole number to find the number of servings.

**Yield for chili mac example recipe:**

Crediting **meat/meat alternate** and **fruit/vegetable**: The maximum number of servings that can be provided is nine because the recipe yields nine servings of meat/meat alternate and fruit/vegetable.

Crediting **meat/meat alternate** and **bread/bread alternate**: The maximum number of servings that can be provided is nine because the recipe yields nine servings of meat/meat alternate.

Crediting **fruit/vegetable** and **bread/bread alternate**: The maximum number of servings that can be provided is nine because the recipe yields nine servings of fruit/vegetable.

# Recipe Analysis Worksheet

| Ingredients | Amount | Meat/Meat Alternate | Fruit/ Vegetable (1/4 cup) | Bread/Bread Alternate | Milk (served as a beverage) |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
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| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | Total | | | | |
| | Calculations | | | | |
| | Number of Servings (for children 3-5 years old) | | | | |

*To determine the number of 1-1/2 ounce servings of meat/meat alternate for children 3-5 years old, divide the total ounces by 1.5. Divide the total ounces by 2 to determine the number of 2 ounce servings for children 6-12 years of age.

**Instructions:**

1. List all the ingredients in the left hand column and the amount of each ingredient in the second column.
2. Find each ingredient in the list of foods and yields which follows or in the Food Buying Guide for Child Nutrition Programs (PA-1331). Record the yield of meat/meat alternate in ounces, the yield of fruit/vegetable in 1/4 cup servings and the yield of bread/bread alternate in 1/2 slices of bread or the equivalent.
3. Determine the number of 1.5 ounce meat/meat alternate servings for children 3-5 years old by dividing the total by 1.5. Divide the total by 2 to find number of 2 ounce servings provided for children 6-12 years old.
4. Round the total for fruit/vegetables and bread/bread alternate down to the nearest whole number to find the number of servings.

**It is recommended that recipes that include foods from more than two food groups be credited for only one or two different meal components.**

# Common Food Yields

The following are common ingredients used in foods served in day care homes and child care centers. Yields and servings correspond to required amounts for 3-5 year olds for lunch or supper. These yields are rounded to the nearest whole number.

| Meat/Meat Alternates | | | |
|---|---|---|---|
| **Meat/Meat Alternate** | **Amount Raw** | **Cooked Yield** | **Number of 1.5 ounce Servings or Equivalent** |
| beef, ground | 1 pound | 11.5 oz | 7 |
| cheese | 1 pound | 16 oz | 10 |
| cheese spread, processed cheese food | 1 pound | — | 5 |
| chicken, boneless | 1 pound | 11.2 oz | 7 |
| chicken with bone | 1 pound | 7.68 oz | 5 |
| cottage cheese | 1 cup | — | .65 |
| dry beans | 1 pound | 23 oz | 13 |
| ham, boneless | 1 pound | 10 oz | 6 |
| pork, ground | 1 pound | 11.5 oz | 7 |
| tuna | 1 - 6.5 oz can | 5.7 oz | 3 |
| turkey, ground | 1 pound | 12.6 oz | 8 |

| Bread/Bread Alternates | | |
|---|---|---|
| **Bread/Bread Alternate** | **Amount Raw** | **Number of 1/4 Cup Servings** |
| egg noodles, raw | 1 pound | 40 |
| elbow macaroni, raw | 1 pound | 39 |
| lasagna noodles, raw | 1 pound | 36 |
| rice, raw (white, enriched) | 1 cup (1 c raw= 3 c cooked) | 15 |
| rice, raw (white, enriched) | 1 pound (1 lb raw = 3 lb cooked) | 31 |
| spaghetti, raw | 1 pound | 33 |

| Vegetables | | |
|---|---|---|
| **Vegetable** | **Amount Raw** | **Number of 1/4 Cup Servings** |
| broccoli, fresh | 1 pound | 9 |
| broccoli, frozen | 1 pound | 9 |
| celery, fresh (sliced) | 1 pound | 8 |
| corn, canned, whole kernel (vacuum-packed) | 16 oz | 8 |
| corn, frozen, whole kernel | 1 pound | 11 |
| green beans, canned, whole | 16 oz | 8 |
| green beans, frozen, cut | 1 pound | 11 |
| kidney beans, canned | 16 oz | 6 |
| peas, canned | 1 pound | 6 |
| peas, frozen | 1 pound | 10 |
| potatoes, fresh, white | 1 pound | 8 |
| potatoes, frozen, hash browns | 1 pound | 7 |
| potatoes, frozen, tater tots or rounds | 1 pound | 12 |
| tomatoes, canned | 16 oz | 7 |
| tomato paste | 12 oz (1 T = 1/4 c sauce) | 20 |
| tomato puree | 16 oz (2 T = 1/4 c sauce) | 14 |
| tomato sauce | 16 oz | 7 |
| tomato soup (condensed) | 1 can (10-3/4 oz) | 2 |

Adapted from the Food Buying Guide for Child Nutrition Programs.

# Crediting Foods

One goal of the Child and Adult Care Food Program (CACFP) is to improve the health and nutrition of children in the Program. The Program also promotes good eating habits and nutrition education. The *Food Buying Guide (FBG) for Child Nutrition Programs* is the main resource used to determine the contribution foods make toward the meal requirements. The same rules apply for foods prepared on-site or purchased commercially.

**Creditable** foods are those foods that may be counted toward meeting the requirements for a reimbursable meal. The following factors are considered when determining whether a food is creditable:

- nutrient content
- function in a meal
- regulations governing the Child Nutrition Programs (on quantity requirements and/or by definition)
- FDA Standards of Identity
- USDA standards for meat and meat products
- administrative policy decisions on the crediting of particular foods

**Noncreditable** or **other** foods are not creditable toward the meal pattern. Noncreditable foods do not meet the requirements for any component in the meal pattern. However, noncreditable foods may supply calories which help meet the energy needs of participants and may contribute additional protein, vitamins and minerals. They can be used to supplement the required meal components, to improve acceptability and to satisfy appetites.

USDA reimburses child care centers and family day care home sponsors participating in the CACFP for the **meals served, not for individual foods**. A meal is reimbursable if it contains foods in amounts required by the meal pattern for the specific age group. Meals that contain foods in addition to all components specified in the meal pattern are also reimbursable.

All serving sizes specified in the following charts on crediting foods are for children three through five years of age.

***The following food list includes only those foods about which crediting inquiries are often made or foods that are often credited incorrectly. Use of product brand names does not constitute USDA approval or endorsement. Product brand names are used solely for clarification. If you have a question regarding the crediting of a particular food item not listed here, contact your state agency or sponsor for information.***

## Child and Adult Care Food Program
## Meal Pattern for Children

| | Children 1 and 2 years | Children 3 through 5 years | Children 6 through 12 years |
|---|---|---|---|
| **breakfast** | | | |
| **Milk,** fluid | 1/2 cup | 3/4 cup | 1 cup |
| **Juice, fruit** or **vegetable** | 1/4 cup | 1/2 cup | 1/2 cup |
| **Bread** or **cereal:** | | | |
| Bread; enriched or whole grain | 1/2 slice | 1/2 slice | 1 slice |
| Cereal; cold , dry | 1/4 cup[1] | 1/3 cup[2] | 3/4 cup[3] |
| or hot, cooked | 1/4 cup | 1/4 cup | 1/2 cup |
| **supplement** (snack) (select 2 of 4 components) | | | |
| **Milk,** fluid | 1/2 cup | 1/2 cup | 1 cup |
| **Meat** or **meat alternate**[4] | 1/2 ounce | 1/2 ounce | 1 ounce |
| **Juice, fruit** or **vegetable** | 1/2 cup | 1/2 cup | 3/4 cup |
| **Bread** or **cereal,** | | | |
| Bread; enriched or whole grain | 1/2 slice | 1/2 slice | 1 slice |
| Cereal; cold dry | 1/4 cup[1] | 1/3 cup[2] | 3/4 cup[3] |
| or hot cooked | 1/4 cup | 1/4 cup | 1/2 cup |
| **lunch or supper** | | | |
| **Milk,** fluid | 1/2 cup | 3/4 cup | 1 cup |
| **Meat** or **meat alternate** | | | |
| Meat, poultry or fish, cooked (lean meat without bone) | 1 ounce | 1-1/2 ounces | 2 ounces |
| Cheese | 1 ounce | 1-1/2 ounces | 2 ounces |
| Egg | 1 | 1 | 1 |
| Cooked dry beans/peas | 1/4 cup | 3/8 cup | 1/2 cup |
| Peanut butter or other nut or seed butters | 2 tablespoons | 3 tablespoons | 4 tablespoons |
| Nuts and/or seeds | 1/2 ounce[5] = 50% | 3/4 ounce[5] = 50% | 1 ounce[5] = 50% |
| **Vegetable** and/or **fruit** (2 or more) | 1/4 cup total | 1/2 cup total | 3/4 cup total |
| **Bread** or **bread alternate** enriched or whole grain | 1/2 slice | 1/2 slice | 1 slice |

[1] 1/4 cup (volume) or 1/3 ounce (weight), whichever is less.
[2] 1/3 cup (volume) or 1/2 ounce (weight), whichever is less.
[3] 3/4 cup (volume) or 1 ounce (weight), whichever is less .
[4] Yogurt may be used as a meat/meat alternate in the snack only. You may serve 4 ounces (weight) or 1/2 cup (volume) of plain, or sweetened and flavored yogurt to fulfill the equivalent of 1 ounce of the meat/meat alternate component. For younger children, 2 ounces (weight) or 1/4 cup (volume) may fulfill the equivalent of 1/2 ounce of the meat/meat alternate requirement.
[5] This portion can meet only one-half of the total serving of the meat/meat alternate requirement for lunch or supper. Nuts or seeds must be combined with another meat/meat alternate to fulfill the requirement. For determining combinations, 1 ounce of nuts or seeds is equal to one ounce of cooked lean, meat, poultry, or fish.

## Bread and Bread Alternates

CACFP regulations require that breakfast, lunch and supper contain bread or a bread alternate in the amount specified for each age group served. A bread or bread alternate may also be served as one of the two components of a snack.

Bread products can only be credited when they are whole-grain or enriched or made from whole-grain or enriched meal or flour. The primary ingredient by weight (first ingredient on the label's ingredient list, or the heaviest ingredient in the recipe) must be whole-grain and/or enriched flour/meal.

The bread/bread alternate item must serve the customary function of bread in a meal. For a lunch or supper, this means that the item must be served as an accompaniment to the main dish (i.e. dinner rolls), **or** as a recognizable integral part of the main dish (i.e. taco shells, pot pie crust or spaghetti).

The required serving size is based on the nutrients (primarily iron) provided by the grain content of a 25-gram (or 0.9 ounce) slice of enriched white bread or an equal amount of enriched or whole grain meal or flour. The practicality of the serving size is also taken into consideration. Finally, the serving size is based on the total solids content of the item.

Breads and bread alternates have been divided into four groups according to moisture content. Within each group, all bread items have approximately the same nutrient content, percent solids and grain content per serving. The minimum serving size is based on the grain content of the product (not including fillings, toppings, etc.). A chart with this information, adapted from the *Food Buying Guide for Child Nutrition Programs*, is included on the next page.

The *Food Buying Guide for Child Nutrition Programs*, State agencies and sponsors are excellent sources for information on the crediting of bread items.

## Bread and Bread Alternates for Child Nutrition Programs

Serving sizes in ( ) are for children 3 through 5 years old.

### Group A - Breads, Rolls and Quick Breads

1/4 serving = 7 grams (0.2 oz)
1/2 serving = 13 grams (0.5 oz)
3/4 serving = 19 grams (0.7 oz)
1 serving = 25 grams (0.9 oz)

- bagels (1/2)
- biscuits (1)
- Boston Brown Bread (1/2 slice)
- breads, sliced, all types (white, rye, whole wheat, raisin, quick breads, etc.) (1/2 slice)
- coffee cake (bfst and snack only)(0.5 oz)
- corn bread (0.5 oz)
- corn dog batter or breading (0.5 oz)
- croissants (1/2 croissant)
- doughnuts (bfst and snack only)(1/2)
- egg roll/wonton wrappers (0.5 oz)
- English muffins (1/2)
- French, Vienna or Italian bread (1/2 slice)
- muffins (1/2)
- pizza crust (0.5 oz)
- pretzels (soft only) (1)
- rolls and buns (1/2)
- stuffing (0.5 oz) (weight applies to the bread in stuffing)
- sweet buns/rolls (0.5 oz) (breakfast and snack only)
- Syrian bread (pita bread) (1/2 round)

### Group B - Crackers and Low Moisture Breads

1/4 serving = 5 grams (0.2 oz)
1/2 serving = 10 grams (0.4 oz)
3/4 serving = 15 grams (0.5 oz)
1 serving = 20 grams (0.7 oz)

- batter and/or breading (0.4 oz)
- bread sticks (dry) (2 sticks)
- chow mein noodles (1/4 cup)
- graham crackers (2 squares)
- melba toast (3 pieces)
- rice cakes (0.4 oz) (approx. 1.5)
- rye wafers (2 wafers)
- saltine crackers (4 squares)
- soda crackers (2 crackers)
- taco/tostada shells (whole, pieces) (1)
- toaster pastry crust (0.4 oz) (breakfast and snack only)
- Zwieback (2 pieces)

### Group C - Miscellaneous Items

1/4 serving = 8 grams (0.3 oz)
1/2 serving = 15 grams (0.5 oz)
3/4 serving = 22 grams (0.8 oz)
1 serving = 30 grams (1.1 oz)

NOTE: cookies, granola bars, etc. (snack only) - 1/2 serving = 18 grams, 1 serving = 35 grams

- crepes (0.5 oz)
- dumplings (0.5 oz)
- hush puppies (0.5 oz)
- pancakes ( 0.5 oz)
- pie crust (0.5 oz)
- sopaipillas (0.5 oz)
- spoonbread (0.5 oz)
- tamales (masa) (0.5 oz)
- tortillas (0.5 oz - approx. 1/2)
- turnover crust (0.5 oz)
- waffles (0.5 oz - approx. 1/2)

### Group D - Pastas, Cereal Grains and Breakfast Cereals

1/4 serving = 1/8 cup cooked or 7 grams (0.2 oz) dry
1/2 serving = 1/4 cup cooked or 13 grams (0.5 oz) dry
3/4 serving = 3/8 cup cooked or 19 grams (0.7 oz) dry
1 serving = 1/2 cup cooked or 25 grams (0.9 oz) dry

- barley (1/4 cup cooked)
- breakfast cereals, **cold dry or cooked (breakfast and snack only)
- bulgur (1/4 cup cooked)
- corn grits (1/4 cup cooked)
- lasagna noodles (1/4 cup cooked)
- millet (1/4 cup cooked)
- noodles (egg)(1/4 cup cooked)
- pasta (1/4 cup cooked) (spaghetti, macaroni , etc)
- ravioli (pasta only) (1/4 cup cooked)
- rice (1/4 cup cooked)

*** For most foods, children ages one through five are served 1/2 serving to meet the meal pattern requirement. Children ages six and above are served one full serving to meet the meal pattern requirement.**

** A serving of cold dry cereal is 3/4 cup or 1 ounce, whichever is less (one-half serving is 1/3 cup or 1/2 ounce)and a serving of cooked cereal is 1/2 cup (one-half serving is 1/4 cup).

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| bagels | X | | One serving equals 13 grams (0.5 oz). Bagels are in Group A. | Bagels are relatively low in fat and high in complex carbohydrates. Enriched bagels contain significant amounts of thiamin, riboflavin, iron and niacin. Whole-grain varieties are good sources of fiber. |
| banana bread | — | — | See: Quick bread. | |
| bagel chips | | X | See: Chips. | |
| batters and breadings | X | | May be used as bread alternates if (1) served as a part of the main dish of the meal; and (2) if whole-grain or enriched flour or meal is the primary ingredient by weight. A serving is 10 grams (0.4 oz).<br>It may be difficult to determine the amount of batter or breading on products. It is recommended to serve another bread item with the meal. | Battered and breaded foods can be high in fat. Read labels of battered and breaded products for nutrition information. |
| biscuits | X | | One serving equals 13 grams (0.5 oz). Biscuits are in Group A. | Biscuits contain more fat than most other breads. |
| Boston brown bread | X | | | |
| bread pudding | X | | The bread in bread pudding is creditable for **snacks** only. Bread pudding must contain a minimum of one-half slice of bread per serving. | |
| breads (white, rye, whole wheat, pumpernickel, Boston brown bread, brown bread, Roman meal, French, etc.) | X | | Breads must be enriched or made from enriched or whole-grain meal or flour. | Breads are excellent sources of complex carbohydrates and fiber along with thiamin, riboflavin, iron and niacin. Breads are usually low in fat. |
| bread sticks | X | | One serving equals 10 grams. Bread sticks are in Group B. | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| bread stuffing | — | — | The amount of bread in a serving of stuffing should weigh at least 13 grams (0.5 ounces). Quick/commercial stuffing mixes are only creditable if it can be determined that each serving provides 13 grams (0.5 oz) of bread and the product is enriched or made from enriched or whole-grain meal or flour. Flour/meal must be the primary ingredient(s). | Bread stuffing may be high in fat depending on the recipe followed. |
| breading/batter | X | | See: Batter/breading. | |
| brownies | — | — | Contact your sponsor or State agency for more information. In many States, brownies are not creditable because sugar is usually the primary ingredient. However, a few States credit brownies made from a State-approved recipe with flour as the primary ingredient. | |
| cakes | | X | Cakes do not meet the general criteria for breads. The first ingredient by weight is usually sugar. | |
| caramel corn | | X | Popcorn does not meet the definition of bread. | Popcorn is a good source of fiber. |
| carrot bread | — | — | See: Quick bread. | |
| cereal | X | | Cereal cannot be credited when sugar is the primary ingredient by weight. | |
| cereal bars | X | X | Contact your sponsor or State agency for crediting information. | |
| chips | | X | Chips such as bagel chips, corn chips, fruit chips, potato chips, pretzel chips, taco chips ,etc. are considered snack foods. | Chips can be high in fat and salt. |
| chow mein noodles | X | | One serving equals 10 grams (0.4 oz). Chow mein noodles are in Group B. | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| cinnamon/sweet rolls, coffee cake, Danish pastry | X | | These are only acceptable for **breakfasts** and **snacks**. One serving equals 13 grams (0.5 oz). (Group A) | These rolls can be high in fat and sugar. |
| cookies/bars | X | | Cookies are creditable for **snacks** only. Cookies are to be served no more than twice per week because of high sugar content. The cookies must contain whole-grain or enriched meal or flour (as specified on the label or according to the recipe )as the primary ingredient by weight. The minimum weight of a serving is 18 grams (not including weight of filling or frosting).<br><br>Your State agency or sponsor may have information on serving sizes for different types of cookies. | |
| corn | — | — | See Fruits and Vegetables. | |
| corn bread | X | | Corn bread must meet the general criteria for bread/bread alternates. | |
| corn chips | | X | See: Chips. | |
| corn dogs | X | | The batter/breading on corn dogs may be credited if enriched flour or meal is the primary ingredient. | |
| crackers | X | | Crackers must meet the general requirement for bread/bread alternates. One serving equals 10 grams (0.4 oz) (Group B). Because snack crackers vary in size and flour content, serving sizes for crackers may range anywhere from 2-8 crackers.<br><br>Two graham crackers = 1 serving<br>Four saltines/soda crackers = 1 serving<br><br>Your State agency or sponsor may have information on serving sizes for many different types of crackers. | Some crackers are high in fat and/or salt . They should be served in moderation. |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| cream puff shells | X | | Cream puff shells may be credited only for **snacks** if whole-grain or enriched meal or flour is the primary ingredient by weight as specified by the recipe or on the label. Cream puffs are in Group C. | Cream puffs and traditional custard or cream fillings are high in fat. |
| crepes | X | | Flour may not outweigh the liquid in many recipes for crepes. The water is lost through evaporation during cooking. One serving equals 15 grams (0.5 oz) (Group C). | |
| croissants | X | | One serving of croissants equals 13 grams (0.5 oz). Croissants are in Group A. | Croissants are high in fat. |
| croutons | X | | Croutons made from enriched or whole-grain bread are creditable. One serving equals 10 grams (0.4 oz) (Group B). Croutons must be served as an integral part of the main dish to be creditable for lunch or supper. | |
| cupcakes | | X | See: Cakes. | |
| Danish pastry | X | | See: Cinnamon rolls. | |
| doughnuts | X | | Doughnuts are creditable for **breakfasts** and **snacks** only. One serving equals 13 grams (0.5 oz) (Group A). | Doughnuts are high in fat and sugar. |
| dumplings | X | | One serving of dumplings equals 15 grams (0.5 oz) (Group C). | |
| egg roll or wonton wrappers | X | | One serving of egg roll or wonton wrappers weighs 13 grams (0.5 oz) (Group A). | |
| English muffins | X | | One serving equals 13 grams (0.5 oz) (Group A). | |
| French bread | X | | See: Bread. | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| fried bread | X | | Enriched or whole-grain meal or flour must be the primary ingredient by weight in the recipe. | Fried bread is high in fat. |
| ginger bread | — | — | See: Quick bread. | |
| glorified rice | X | | See: Rice pudding. | |
| granola bars (homemade or commercial) | X | | Granola bars are creditable for **snacks** only. One serving must weigh 18 grams. Granola bars can be served a maximum of two times per week because of their high sugar content. | Granola bars are high in sugar and fat. They can be a good source of fiber and complex carbohydrates. |
| grits | X | | Grits are creditable if they are whole-grain or enriched. | |
| hominy | | X | Hominy is not creditable. It is not made from the whole kernel of corn and therefore, does not meet the criteria for bread. | |
| ice cream cones | | X | One cone weighs only 3 grams which is insufficient to credit as a bread/bread alternate. | |
| lefsa | X | | Lefsa is a Scandinavian unleavened bread made primarily of potatoes and flour. Lefsa is often rolled with butter, brown sugar, jams, or cinnamon and sugar.<br><br>Lefsa is creditable when enriched or whole-grain meal or flour is the primary ingredient by weight. It may not be credited as a vegetable in the same meal. | |
| millet | X | | Millet may be credited as a bread alternate. One serving equals 13 grams (0.5 oz) (Group D). | |
| muffins | X | | Muffins are creditable if they meet the general criteria for bread/bread alternates. One serving equals 13 grams (0.5 oz) (Group D). | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| nachos | — | — | Nachos made with taco pieces can be credited. Nachos made with chips are not creditable. See: Tacos. | |
| noodles | X | | Noodles must be enriched and served in sufficient quantities. One serving of noodles weighs 13 grams (0.5 oz) or approximately 1/4 cup (Group D). | |
| nut or seed meal or flour | | X | Nuts and seeds are not grains and there are no standards for enrichment. | |
| oat bran | | X | Oat bran is not a whole-grain. | |
| pancakes | X | | One serving of pancakes weighs 15 grams (0.5 oz) (Group C). | |
| party mix | X | | Party mix (mixed cereals) is creditable for **snacks** only. Only the weight of the cereals is creditable as a bread alternate. | Some party mixes are high in salt. |
| pasta | X | | Pasta must be enriched and served in sufficient quantities to be creditable. One serving of pasta weighs 13 grams (0.5 oz) or approximately 1/4 cup (Group D). | |
| pie crust, dessert pastry | X | | Pie crust, cobblers, crisps and dessert popovers are creditable for snacks when the required serving size (15 grams - 0.5 oz) (Group C) is served and when whole-grain or enriched meal or flour is the predominant ingredient by weight as specified on the label or by the recipe. | Pies and pastries can be high in fat and sugar. It is recommended that they be served no more than two times per week. |
| pie crust, main dish | X | | If the pie crust is a recognizable, integral part of the main dish, and is served as an accompaniment to or as part of the main dish, it is creditable. | Pie and pastry crusts are high in fat. |
| pineapple-upside-down cake | | X | This is a cake. It does not meet the criteria for bread/bread alternates. | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| pita bread | X | | One serving of pita bread weighs 13 grams (0.5 ounces) (Group A). | Pita bread is a good source of complex carbohydrates. Enriched pita is a good source of thiamin, riboflavin, thiamin and iron. Whole wheat pita can be high in fiber. |
| pizza crust | X | | Pizza crust must meet the general requirements for bread/bread alternates. One serving weighs 13 grams (0.5 oz) (Group A). | |
| Pop Tarts | X | | See: Toaster tarts/pastries. | |
| popcorn | | X | Popcorn does not meet the general requirements for bread/bread alternates. | |
| popovers | X | | | |
| potato chips | | X | See: Chips. Potato chips are considered a snack food and are not creditable. | |
| potato pancakes | | X | Potato pancakes contain a minimal quantity of flour. | |
| potatoes | — | — | See : Fruits and Vegetables. | |
| pound cake | | X | See: Cakes. | |
| pretzels, Dutch (soft) | X | | One serving equals 13 grams (0.5 oz) (Group A). | |
| pretzels, thin (hard) | | X | See: Chips. Pretzels are considered a snack and are not creditable. | |
| puff pastry | X | | Puff pastry is creditable if (1) it is made from enriched or whole-grain meal or flour, and (2) it serves the customary function of bread in a meal. One serving equals 15 grams (0.6 oz) (Group C). This weight does not include the weight of the filling. | Puff pastry can be high in fat. |
| pumpernickel bread | X | | See: Breads. | |
| pumpkin bread | — | — | See: Quick bread. | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| quick bread | — | — | Quick breads may be credited as an acceptable bread alternate if (1) the recipe shows that enriched or whole-grain flour is the primary ingredient by weight and if (2) the bread serves the customary function of bread in the meal.<br><br>One serving must have a minimum weight of 13 grams.<br><br>These items are called bread because they are usually baked in a loaf shaped pan. The recipes are commonly **cake** recipes. If you can demonstrate that the above criteria are met, then the bread can be credited. | |
| quinoa | X | | Quinoa is a cereal-like plant product derived from an herb. The seeds may be red, black, or white. It is creditable as a whole-grain flour. | |
| raisin bread | X | | See: Bread. | |
| rice | X | | Rice is creditable if it is whole grain or enriched. One serving equals 1/4 cup cooked rice (Group D). | Rice is a good source of complex carbohydrates. |
| rice cakes | X | | Rice cakes must be enriched or whole-grain. One serving weighs 10 grams (0.5 oz) (Group B). Rice cakes are available in various sizes. One standard-size rice cake weighs approximately 9 grams. One serving is equal to 1.5 rice cakes. | |
| rice cereal bars | — | — | These bars are creditable for snacks only if the cereal is whole-grain, enriched, or fortified. Contact your State agency or sponsor for crediting information. | Rice cereal bars are high in sugar. It is recommended that they be served no more than two times per week. |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| rice pudding | X | | Rice pudding is creditable for snacks only when whole-grain or enriched rice is the primary ingredient by weight.The amount of rice per serving must equal 1/4 cup cooked rice. | |
| rolls- all types | X | | One serving equals 13 grams (0.5 oz) (Group A). The rolls must be enriched or made from whole-grain or enriched meal or flour. | |
| Roman meal bread | X | | See: Bread. | |
| rye wafers | X | | Rye wafers are in Group B. One serving equals 0 grams (0.4 oz). | |
| sopaipillas | X | | Sopaipillas are in Group C. One serving equals 15 grams (0.5 oz). | |
| squash bread | — | — | See: Quick bread. | |
| stuffing, bread | — | — | See: Bread stuffing. | |
| sweet rolls | X | | See: Cinnamon rolls | |
| taco chips | | X | See: Chips. | |
| taco shells and taco shell pieces | X | | Taco shells or taco pieces are creditable only if served as part of the main dish. (customary function of bread in a meal) If the taco pieces are served separately, they cannot be counted as a bread/bread alternate.<br><br>Taco pieces with cheese (nachos) are creditable for snacks.<br><br>Whole-grain or enriched meal or flour must be the predominant ingredient by weight. If the label lists only "corn," the manufacturer must verify that whole-grain corn has been used. One serving equals 10 grams (0.4 oz) (Group B). | |
| tapioca pudding | | X | | |

## Bread/Bread Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| toaster pastries/tarts | X | | Toaster pastries/tarts may be credited for **breakfast** and **snack** only. One serving equals 10 grams (0.4 oz.) (Group B). | |
| tortillas | X | | Tortillas must be enriched or whole-grain to be credited. One serving equals 15 grams (0.5 oz) (Group C). Corn tortillas may be credited if the primary ingredient is whole-grain corn, whole-ground corn, cornmeal, enriched cornmeal, corn flour, enriched corn flour or enriched corn grits. Corn grits, degerminated corn flour and degerminated cornmeal are not creditable. | |
| turnovers | X | | Turnover pastry may be credited as a bread/bread alternate for snacks and breakfasts. | Turnovers are high in fat. |
| wheat germ | | X | Wheat germ is not creditable. It is not whole-grain. | |
| wild rice | X | | | |
| zucchini bread | — | — | See: Quick bread. | |

## Fruits and Vegetables

CACFP regulations require that breakfast contain a serving of vegetable(s) or fruit(s) or full-strength vegetable or fruit juice, or an equivalent quantity of any combination of these foods.

Both lunch and supper must contain two separate servings of vegetables or fruits. Full-strength vegetable or fruit juice may be counted to meet not more than one-half of this requirement.

A serving of vegetable or fruit may be credited as one component of the required two components of a snack. Juice may not be credited as one of the components of a snack when milk is served as the only other component.

For information on fruit juices, refer to "Understanding Food Labels: What's in a Food?"

Cooked dry beans or peas may be counted as a vegetable or as a meat alternate, but not as both in the same meal.

Small amounts (less than 1/8 cup) of vegetables and fruits used as garnishes, may not be counted toward the vegetable/fruit requirement.

Fruit or vegetable dishes that contain more than one fruit or vegetable such as fruit cocktail, mixed fruit or mixed vegetables may be credited toward only one of the two required components for lunch and supper.

Home canned products are not creditable because of health and safety reasons. For more information on canned foods, contact your State agency, sponsor or county extension agent.

Dehydrated vegetables can be credited. Yields for dehydrated vegetables must be based on the rehydrated volume, not the dry volume stated on the label. Rehydration yields vary from brand to brand.

To determine the rehydrated volume for vegetables:

- Rehydrate the dehydrated vegetable according to the manufacturer's directions by adding water or other liquid. If the directions are not on the container, request directions from the manufacturer.
- Measure the rehydrated volume.
- Calculate the number of servings provided.
- Keep a record of yield data for referral.

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| ade drinks (lemonade, limeade, etc.) | | X | "Ade" drinks are not 100% full-strength juice. | "Ade" drinks are usually high in sugar. |
| apple butter | | X | Apple butter does not contain enough fruit for crediting purposes. | |
| apple cider | X | | Apple cider is a full-strength juice. | |
| apple fritters, homemade | X | | Apple fritters may be credited as part of the total requirement for fruits/vegetables if each serving has at least 1/8 cup of apples. | Apple fritters are high in fat. |
| aspic | — | — | See: Gelatin salads. | |
| banana bread | | X | Fruit and vegetable breads, such as banana bread or zucchini bread, do not contain enough fruit/vegetable to be credited toward the fruit/vegetable requirement. They contain less than 1/8 cup per serving. | |
| banana in pudding | X | | Pudding with bananas can be credited as part of the total requirement for fruits/vegetables if each serving has at least 1/8 cup of bananas.If the pudding contains less than 1/8 cup of fruit per serving then the fruit may not be counted toward the fruit/vegetable requirement. | |
| barbecue sauce | | X | Barbecue sauce does not contain enough vegetable per serving to be credited. | Barbecue sauce may be high in salt. Choose lower sodium varieties or limit the use of barbecue sauces. |
| bean sprouts | X | | Bean sprouts can be credited if at least 1/8 cup are served. | |
| beans, canned or dry | X | | Beans and peas cooked from a dry state or canned (kidney, garbanzo, black beans, etc.) may be credited as a vegetable. They cannot be credited toward the meat/meat alternate and the fruit/vegetable requirement in the same meal. | Beans and peas are good sources of protein , fiber and iron and are naturally low in fat. |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| beverages, fruit | | X | Fruit beverages (ades, juice drinks, punches) contain less than 50% full-strength juice. Fruit drinks are primarily sugar, flavors and water. | |
| cake containing fruit | | X | Cakes containing less than 1/8 cup fruit per serving cannot be credited. | |
| carrot in bread | | X | See: Banana in bread. | |
| catsup | | X | There is not enough vegetable present to be credited. | |
| chili sauce | | X | Chili sauce does not contain enough vegetable to be credited. | |
| coconut | | X | Coconut does not contribute towards the meal pattern. Coconut is considered a nut or seed product. | In comparison to other fruits, coconut is high in fat with approximately 7 grams of fat per every 1/4 cup serving. Most other fruits have less than 1 gram of fat per serving. |
| coleslaw | X | | Only the vegetable/fruit ingredients can be counted toward the fruit/vegetable requirement. | Cabbage is a good source of Vitamin C. |
| corn chips | | X | Chips are not creditable. | Chips are high in fat and salt. |
| corn syrup | | X | Corn syrup is primarily sugar and does not make a contribution to the fruit/vegetable requirement. | |
| cranberries | X | | | Cranberries are a good source of Vitamin C and fiber. |
| cranberry juice blend | X | | Cranberry juice (not cocktail) in a blend with another full-strength juice is creditable (for example, 100% cranberry juice mixed with 100% apple juice). Cranberry juice (100%) that is not blended with other juices is not commercially available as a fruit juice. | |
| cranberry juice cocktail | | X | Cranberry juice cocktail contains less than 50% full-strength juice. | |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| cranberry relish or sauce | X | | Only sauces with whole or crushed berries can be credited. Jellied sauces are up to half sugar and cannot be credited. | |
| drinks, fruit | | X | Fruit drinks contain less than 50% full-strength juice. Fruit drinks are primarily sugar, flavors and water. | |
| dry spice mixes | | X | | |
| figs in fig bar cookies | | X | The amount of figs in the cookies is too small to count toward the fruit/vegetable component. | |
| frozen fruit flavored bars (commercial) | | X | Frozen fruit flavored bars do not contain enough fruit juice to be creditable. | |
| frozen fruit juice bars (homemade or commercial) | — | — | The fruit juice portion of the bars may be counted to meet the fruit/vegetable requirement. Commercial fruit juice bars containing 100% juice can be credited. Other commercial fruit juice bars cannot be credited because it is impossible to determine the amount of fruit juice in each bar. | |
| fruit in breads or muffins (banana, carrot, cranberry, pumpkin, zucchini, etc.) | | X | See: Banana bread. | |
| fruit cobblers (homemade) | X | | The fruit may contribute toward the fruit/vegetable requirement if one serving contains at least 1/8 cup fruit. | Depending on the recipe, fruit cobblers may be high in sugar and fat. |
| fruit crisps (homemade) | X | | The fruit may contribute towards the fruit/vegetable requirement if one serving contains at least 1/8 cup. See pie filling. | Fruit crisps are commonly high in fat. |
| fruit drinks | | X | See: Drinks, fruit. | |
| fruit flavored punch | | X | Fruit flavored punch does not contain a sufficient amount of full-strength juice. | Fruit punch is high in sugar. |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| fruit flavored powders and syrups | | X | Fruit flavored powders and syrups do not contain a sufficient amount of fruit to contribute toward the fruit/vegetable requirement. | Fruit flavored powders are primarily sugar and flavoring. |
| fruit juice bases | | X | Fruit juice bases do not contain a sufficient amount of fruit per serving to contribute toward the fruit/vegetable requirement. | |
| fruit pie filling, commercial | X | | If the first item listed in the ingredient list is fruit, the filling may provide one-half credit (1/2 cup of fruit pie filling will provide 1/4 cup of fruit credit ). It is recommended that fruit pie filling be credited only at lunch or supper. | The use of fruit pies and pastries to meet the fruit/vegetable requirement should be limited due to high fat and sugar contents. |
| fruit pie filling, homemade | X | | In a homemade or center-made pie, the amount of fruit can be credited based on the amount of fruit divided by the yield. | The use of fruit pies to meet the fruit/vegetable requirement should be limited due to high fat and sugar contents. |
| fruit sauces, homemade | X | | The fruit portion of the sauce may be credited. One serving must provide a minimum of 1/8 cup of fruit (2 Tbsp). | |
| fruit snacks | | X | It is impossible to determine the amount of fruit in products such as fruit bars, roll-ups, wrinkles, cakes or candy . | |
| gelatin desserts or salads with fruit/fruit juice/vegetable | X | | The fruit/vegetable in gelatin desserts may be credited toward the fruit/vegetable requirement if each serving contains a minimum of 1/8 cup fruit, full-strength fruit juice, or vegetable. | |
| gravy bases | | X | | |
| hominy | | X | | Because of processing, hominy has minimal nutritional value with only small amounts of starch and fiber. |
| honey | | X | | |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| ice cream, fruit flavored | | X | Fruit flavored ice cream contains an insufficient amount of fruit to credit toward the meal pattern. | |
| jam | | X | Jam contains an insufficient amount of fruit per serving to credit toward the meal pattern. | |
| jelly | | X | Jelly contains an insufficient amount of fruit per serving to credit toward the meal pattern. | Jellies are high in sugar. |
| juice bars | X | | Homemade juice bars made from 100% juice can be credited. | |
| juice blends- all fruit | X | | Juice blends that are combinations of full-strength juices may be credited. | |
| ketchup | | X | Ketchup does not contain a sufficient amount of vegetable per serving. Ketchup is considered a condiment. | Ketchup has a high sodium content. |
| kiwi fruit | X | | 1 kiwi = 1/2 cup serving | Kiwi fruit is a good source of Vitamin C. |
| Kool-Aid | | X | See: Fruit flavored powders. | |
| lefsa | X | | Lefsa is a Scandinavian unleavened bread made primarily of potatoes and flour. Lefsa is often served with butter, butter and brown sugar, jams, or cinnamon and sugar. | |
| | | | Lefsa containing at least 1/8 cup of potato per serving is creditable. | |
| lemon pie filling | | X | Lemon pie filling contains an insufficient amount of fruit per serving. | |
| lemonade | | X | For lemonade to be palatable, the lemon juice must be diluted beyond the 50% fruit juice level and sugar must be added. | |
| maple syrup | | X | | |
| mayonnaise | | X | | |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| muffins with fruit | | X | See: Banana bread. | |
| mustard | | X | | |
| nectar (apricot, pear, peach, etc.) | | X | Nectars commonly contain less than 50% full strength juice. | |
| oil, salad | | X | | |
| olives | X | | Olives can be credited if each serving is at least 1/8 cup. | Olives are high in salt and fat. |
| onion rings | X | | Onion rings are creditable if they are homemade or if a product specification sheet is available which states the amount of onion. | Because they are fried, onion rings are high in fat. |
| pickles | X | | Pickles can be credited if each serving is at least 1/8 cup (2 Tbsp). | Pickles are high in sodium. |
| pickle relish | | X | Pickle relish is considered a garnish or condiment. | |
| pineapple upside down cake | — | — | See: Cake containing fruit. | |
| pizza sauce | X | | Pizza sauce can be credited as tomato sauce if at least 1/8 cup (2 Tbsp) per serving is provided. | |
| Pop Tart/toaster pastry filling | | X | These do not contain enough fruit per serving to be credited. | |
| popsicles | | X | Popsicles do not contain a sufficient amount of fruit juice to be credited. | Popsicles are high in sugar. |
| posole | | X | Posole is a thick soup. It usually contains pork or chicken, broth, hominy, onion, garlic, dried chili peppers and cilantro. | |
| potato chips | | X | | Potato chips are high in fat and salt. |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| potatoes and potato skins | X | | | Potato skins are high in fiber. Potatoes and potato skins can be high in fat if fried. Toppings such as sour cream, cheeses, butter or margarine are also high in fat. |
| preserves | | X | Preserves do not contain a sufficient amount of fruit per serving. | |
| pumpkin in bread | | X | See: Banana bread. | |
| puddings with fruit | — | — | If less than 1/8 cup (2 Tbsp) fruit per serving, pudding with fruit may not be credited toward the fruit/vegetable requirement. | |
| raisins | X | | The serving size, 2-8 Tbsp, is based on volume and may be impractical. Serve raisins with other fruits or vegetables. | Raisins are high in sugar (1/4 cup is equivalent to almost 3 Tbsp sugar). Raisins are high in iron and fiber. |
| rice | | X | Rice is a grain and is creditable as a bread only. See Bread/Bread Alternates. | |
| salad dressing | | X | | |
| salsa | | X | Salsa is considered a garnish and cannot be counted toward the fruit/vegetable requirement. | |
| sherbet/sorbet | | X | Sherbets and sorbet do not contain a sufficient amount of fruit per serving to be creditable. | |
| soup, canned, condensed (1 part soup to 1 part liquid): clam chowder, minestrone, split pea, tomato, tomato with other basic components such as rice or vegetables, vegetable with other basic components such as meat or poultry | X | | 1 cup serving = 1/4 cup vegetable<br>1/2 cup serving = 1/8 cup vegetable<br><br>A serving of less than 1/2 cup does not contribute to the fruit/vegetable requirement. | Soups made from broths containing a variety of vegetables can be a nutritious, low-calorie main dish or accompaniment to a meal. Cream soups are high in fat. Some canned soups may be high in sodium. |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| soup, canned, ready-to- serve: clam chowder, minestrone, split pea, tomato, tomato with other basic components such as rice or vegetables, vegetable with other basic components such as meat or poultry | X | | 1 cup serving = 1/4 cup vegetable<br>1/2 cup serving = 1/8 cup vegetable<br><br>A serving of less than 1/2 cup does not contribute to the fruit/vegetable requirement. | Soups made from broths containing a variety of vegetables can be a nutritious, low-calorie main dish or accompaniment to a meal. Cream soups are high in fat. Some canned soups may be high in sodium. |
| soup, canned:<br>beef (with vegetables and barley), beef, chicken or turkey noodle, chicken gumbo, chicken with rice or stars, cream of celery, cream of chicken, cream of mushroom, French onion, homestyle beef or chicken, pepper steak, chicken corn chowder | | X | Canned soups, such as these, do not contain a sufficient amount of vegetable to contribute toward the fruit/vegetable requirement. | Soups made from broths containing a variety of vegetables can be a nutritious, low-calorie main dish or accompaniment to a meal. Cream soups are high in fat. Some soups may be high in sodium. |
| soup: dehydrated soup mixes | — | — | To credit vegetables in dehydrated soup mixes: Determine the volume measurement by rehydrating the soup according to the manufacturer's directions. Heat, then remove and measure the quantity of vegetables as compared to broth and meat. | |
| soup: homemade | X | | When making homemade soups, use a quantity of vegetables that results in at least 1/8 cup (2 Tbsp) vegetable per serving. | |
| spaghetti sauce | X | | Spaghetti sauce is credited as tomato sauce if 1/8 cup (2 Tbsp) per serving is provided. | |
| sprouts (alfalfa, bean, etc.) | X | | | |
| squash in bread | | X | See: Banana bread. | |
| toaster pastries/Pop-Tarts | | X | These do not contain enough fruit to count toward the fruit/vegetable requirement. | |
| tomato paste | X | | One tablespoon = 1/4 cup vegetable | |

## Fruits and Vegetables

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| tomato puree | X | | Two tablespoons = 1/4 cup vegetable | |
| tomato sauce | X | | One-fourth cup = 1/4 cup vegetable | |
| V-8 juice | X | | See: Vegetable juice blends. | |
| vegetable juice blends | X | | Vegetable juice blends are mixed, full-strength vegetable juices. | Vegetable juice blends may contain a variety of nutrients. However, they may be high in sodium. |
| vegetable, chopped | X | | Vegetables may be credited toward the meal pattern when at least 1/8 cup (2 Tbsp) is provided per serving. | |
| vinegar | | X | | |
| wild plants | X | | USDA does not recommend using wild plants due to the possibility of gathering look-alikes or poisonous plants. Mustard or dandelion greens, if used, should be purchased from a reputable commercial source. | Dark green leafy vegetables and greens are good sources of iron and vitamin A. |
| yogurt with fruit, commercial | | X | Commercially prepared yogurt with fruit contains less than 1/8 cup fruit per serving. Fruit added to yogurt is creditable. | |
| zucchini bread | | X | See: Banana bread. | |

# Meat and Meat Alternates

CACFP regulations require that all lunches and suppers contain a serving of meat or meat alternates as specified in the meal pattern. Meat or meat alternates may also be served as one of the two components of a snack.

Meat includes lean meat, poultry or fish. Meat alternates include cheese, eggs, cooked dry beans or peas, nuts and seeds and their butters (except for acorn, chestnut and coconut). These foods must be served in a main dish, or in a main dish and one other item, to meet this requirement.

The usual serving size of meat or meat alternate for preschool (ages 1-5) children ranges from 1 to 1.5 ounces. To be counted toward meeting any part of the meat/meat alternate requirement, a menu item must provide a minimum of 1/4 ounce of cooked lean meat or equivalent. The rest of the required serving must be met by adding other meat or meat alternates.

Nuts and seeds may fulfill no more than one-half of the meat/meat alternate requirement for lunch and supper or all of the meat/meat alternate requirement for a supplement.

Vegetable protein products may be counted as meeting part of the meat or meat alternate requirement. State agencies or sponsors can provide information on the preparation, serving and crediting of vegetable protein products.

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| acorns | | X | | Acorns have a low protein content. |
| baco-bits | | X | | Baco-bits are low in protein and high in fat. |
| bacon and imitation bacon products | | X | | Bacon is low in protein and high in fat. Also, since the meat is cured and/or smoked, it is high in sodium. |
| beans, canned or dry | X | | Beans and peas cooked from a dry state may be used to count as a meat or meat alternate. Canned black, garbanzo, kidney, pinto, etc. beans may be credited as a meat/meat alternate. Canned green or yellow beans and green peas may be credited only as vegetables. | Beans and peas (those that can be credited as meat/meat alternates) are good sources of protein and fiber and are low in fat. |
| beef jerky | X | | Beef jerky made with pure beef may be credited. The label should state: beef jerky chopped and formed, natural jerky, or beef jerky sausage. | Beef jerky is very high in sodium. |
| bologna | X | | All-meat or poultry products that do not contain by-products, cereal or extenders are creditable. | Bologna, and other processed meats are commonly high in fat and sodium. Like all processed meats, bologna is lower in protein than fresh meat by weight. |
| Canadian bacon | X | | One pound (16 oz) will yield 11 one-ounce servings of cooked meat. Refer to the FBG or your State agency or sponsor for information. | Canadian bacon is high in sodium. |
| canned or frozen: beef stew, chili mac, meat stew, pizza, pot pies,ravioli,etc. | — | — | These combination items are creditable only if (1) the food is CN labeled; (2) a product analysis sheet signed by an official of the manufacturer (not a salesperson), stating the amount of cooked lean meat/meat alternate in the product per serving is on file. | Processed combination foods such as these, are usually higher in fat and sodium than homemade foods. |
| canned pressed luncheon meat (Spam) | X | | Must be all-meat with no binders, fillers, by-products or extenders. | Canned-pressed luncheon meat is usually high in fat and sodium. |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| cheese, cottage | X | | A two-ounce (1/4 c) serving of cottage cheese is equivalent to a one-ounce serving of meat. | Cottage cheese contains less protein per ounce, therefore the required serving size is greater. |
| cheese, cream | | X | Due to low-protein and high-fat content, a serving size that would provide enough protein would be excessive, especially for preschool children. | Cream cheese is high in fat and low in protein in comparison to other cheeses. |
| cheese food and cheese spread (Velveeta, Cheese Whiz) | X | | A two-ounce serving of these products is equivalent to a one-ounce serving of meat. | Processed cheeses are often high in sodium. Try to watch for lower sodium varieties. Processed cheeses are higher in moisture content and lower in protein content than natural cheeses. |
| cheese, natural (American, brick, cheddar, colby, Monterey jack, mozzarella, muenster, provolone, swiss) | X | | A one-ounce serving of natural cheese is equivalent to one-ounce of meat. | Some cheeses are high in fat and cholesterol. Cheese is a good source of protein, calcium, vitamin A and vitamin D. |
| cheese, neufchatel | | X | Due to low-protein and high-fat content, a serving size that would provide enough protein would be excessive, especially for preschool children. | Neufchatel cheese contains less protein and more fat than other creditable cheeses. |
| cheese, parmesan | X | | Six tablespoons equal one ounce of meat. If served as a garnish, the cheese is not creditable because the serving size is too small. | |
| cheese, pimento | X | | A two-ounce serving of pimento cheese is equivalent to one ounce of meat. | |
| cheese, ricotta | X | | A two-ounce (1/4 c) serving of ricotta cheese is equivalent to a one-ounce serving of meat. | Ricotta cheese has less protein and a greater moisture content than natural cheeses per ounce. |
| cheese, Romano | X | | Six tablespoons equals one ounce of meat. If served as a garnish, the cheese is not creditable because the serving size is too small. | |
| chestnuts | | X | | Chestnuts are very low in protein. |
| chitterlings | | X | Chitterlings are considered fat. | |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| coconuts | | X | Coconut cannot be credited for a meat/meat alternate or a fruit/vegetable. | Coconut is very low in protein. |
| corndogs | X | | The frankfurter can be credited as a meat/meat alternate if it meets criteria for frankfurters (see frankfurters). The breading can be credited as a bread/bread alternate (like cornbread). | Corndogs are high in fat. |
| crab, imitation | | X | See: Imitation seafood. | |
| cream cheese | | X | See: Cheese, cream. | |
| deviled eggs | X | | Cooked eggs may be credited. See: Eggs. | Due to the egg and the addition of mayonnaise, deviled eggs are high in cholesterol and fat. Rather than preparing deviled eggs with mayonnaise, try a lower fat variety of the spread. |
| eggs | X | | Cooked eggs may be credited. Eggs cannot be credited when part of a homemade custard or pudding. Eggs should be served as the main dish item to be credited. If you have questions, contact your sponsor or State agency. | Eggs are a good source of protein. However, eggs also contain a significant amount of cholesterol. |
| fish | X | | | Fish is a good source of protein and iron. Many varieties of fish are lower in fat than other types of meat. (Try to broil or bake fish, rather than frying it which increases the amount of fat.) |
| fish, non-commercial (home caught) | | X | For safety reasons, home-caught fish are not creditable. | |
| fish sticks or nuggets | X | | Only the edible fish portion is creditable toward the meat requirement. Contact your sponsor or State agency for information. | |
| frankfurters | X | | All-meat and poultry products that do not contain by-products, cereal, binders or extenders are creditable. | Frankfurters can yield up to 80% of their calories from fat. Also, they can be high in cholesterol, and contain a large quantity of sodium. |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| game (venison, squirrel, rabbit, etc.) | | X | For health and safety reasons, these are not creditable in the CACFP unless they are inspected and approved by the appropriate Federal, State, or local agency. | |
| garbanzo beans | X | | See: Beans, canned or dry. | |
| hamhocks | | X | | Hamhocks are high in fat and low in protein by weight. |
| home-slaughtered meat | | X | To be credited, home-raised animals must be slaughtered at a USDA facility that has a USDA inspector on duty. Poultry is subject to State inspection. | |
| hotdogs | X | | See: Frankfurters. | |
| imitation seafood | | X | | |
| kidney | X | | | |
| kidney beans | X | | See: Beans, canned or dry. | |
| legumes | X | | See: Beans, canned or dry. | |
| liver | X | | | Liver is high in cholesterol and fat. |
| liverwurst | X | | To be creditable, liverwurst cannot contain binders and extenders. | Liverwurst is high in fat and cholesterol. |
| luncheon meat | X | | To be creditable, luncheon meat cannot contain binders and extenders. | |
| macaroni and cheese (see also powdered cheese in macaroni) | — | — | The cheese in **homemade** macaroni and cheese can count toward the meat requirement. The **powdered cheese** in boxed macaroni and cheese cannot be credited toward the meat requirement. | |
| meat sauce | — | — | The meat in **homemade**, but not commercial, sauce can be credited. | |
| neufchatel cheese | | X | See: Cheese, neufchatel | |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| nuts | X | | Nuts may be credited as a serving of meat alternate for snack, but only one-half serving of meat alternate at lunch or supper. Serve only ground or finely chopped nuts and seeds to children under 5 years of age to avoid choking. | Nuts are good sources of protein. Nuts do not contain cholesterol, as they are of plant origin. However, nuts are high in fat and have low iron content. |
| nut or seed meal or flour | | X | Nut or seed meal or flour cannot be credited unless it meets the requirements for vegetable protein products. Contact your State agency or sponsor for information. | |
| oxtails | | X | Oxtails do not contain a sufficient quantity of lean meat or protein. | Oxtails are high in fat. |
| pasta products with meat | | X | Because it is difficult to determine the amount of meat or meat alternate present in commercially prepared pasta products, they are not creditable unless criteria listed for **canned or frozen foods** are met. | |
| peanut butter | X | | It is suggested that peanut butter be served in combination with another meat/meat alternate since the serving size may be too large for preschool children. | Peanut butter is high in fat. It does not contain cholesterol as it is of plant origin. |
| peas, dry or canned | X | | See: Beans, dry or canned. | |
| pepperoni | X | | Pepperoni must be all-meat and/or poultry and may not contain by-products, cereals, binders, or extenders to be credited. | Pepperoni is high in fat and sodium. |
| pig's feet | | X | Pig's feet do not contain sufficient meat content. | Pig's feet are high in fat. |
| pig neck bones | | X | Pig neck bones do not contain sufficient meat content. | Pig neck bones are high in fat. |
| pig tails | | X | Pig tails do not contain sufficient meat content. | Pig tails are high in fat. |
| pimento cheese | X | | See: Cheese, pimento. | |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| pinto beans | X | | See: Beans, canned or dry. | |
| pizza, commercial | — | — | See: Canned or frozen foods. | |
| pizza, homemade | X | | Homemade pizza can be credited if the meat/meat alternates are included in sufficient quantity to meet the required amount. | |
| Polish sausage | X | | Polish sausage is a cooked, smoked sausage containing not more than 30% fat. It is similar in composition to frankfurters, knockwurst and other sausage products. To be creditable, sausage cannot contain binders, extenders, or cereal. | Polish sausage, like most sausage products, is high in fat and sodium. |
| pot pies, commercial | | X | Commercially made pot pies cannot be credited as they do not contain enough meat. | |
| pot pies, homemade | X | | The meat in homemade pot pies can be credited if of sufficient quantities. | The crust and sauce may both be high in fat. |
| potted meat | | X | Potted meat cannot be credited as it contains binders and extenders. | Potted meat is high in sodium. |
| powdered cheese in macaroni | | X | The powdered cheese mix cannot be credited.The macaroni, if enriched, can be credited as a bread alternate. | |
| pressed meat products | X | | | Use pressed meat products infrequently as they are high in sodium. |
| quiche | X | | The eggs, meat and/or cheese in quiche may be credited toward the meat requirement. | |
| ravioli, commercially prepared | | X | Because it is almost impossible to determine the amount of meat or meat alternate in commercially prepared ravioli, they are not creditable unless criteria for canned or frozen foods are met. | |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| salt pork | | X | Salt pork is not creditable due to its high fat and low protein content. | |
| sausage | — | — | To be credited, sausage cannot contain binders, extenders or cereal products. (see Vienna sausage and Polish sausage) | |
| scrapple | | X | Scrapple does not contain a sufficient amount of meat to be credited. | |
| seeds | X | | See: Nuts. | |
| shellfish | X | | Only the edible portion of shellfish is creditable. The shellfish must be fully cooked. | |
| soups, homemade containing: meat, fish, poultry, or other meat alternate | X | | Homemade soups may contribute toward the meat requirement if a minimum of 1/4 oz. meat per serving is provided. | |
| soups, commercially prepared (bean, lentil, or split pea only) | X | | Three-fourths cup of bean, lentil, or split-pea soup may be credited as 1-1/2 oz. meat alternate. | Commercially prepared soups are often high in sodium. |
| soups, commercially prepared, other than bean, lentil,or split pea | | X | These soups contain insufficient quantities of meat. | |
| soy burgers or other soy products | | X | 100% soy products are not creditable. | |
| tempeh | | X | Tempeh is fermented soybean. Because there is no standard of identity for this food, and it could vary from manufacturer to manufacturer, it cannot be credited. | |
| tofu | | X | Tofu is soybean curd. Because there is no standard of identity for this food, and it could vary from manufacturer to manufacturer, it cannot be credited. | |
| tripe | X | | | Tripe has low quality protein. |

## Meat/Meat Alternates

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| Vienna sausage | X | | All-meat or poultry products that do not contain by-products, cereal , binders or extenders are creditable. | |
| yogurt, plain or sweetened and flavored | X | | Yogurt is creditable as a meat/meat alternate for snack only. | Yogurt is a good source of calcium and phosphorus. |

## Notes:

## Milk

The CACFP meal pattern requires **fluid milk** to be served for breakfast, lunch and supper. Additionally, fluid milk may be served as one of the meal pattern components for snacks.

To be credited, milk must be pasteurized, and meet state or local standards for fluid milk. Flavored or unflavored whole milk, low-fat milk, skim milk, or cultured buttermilk may be served. All milk should contain vitamins A and D at levels specified by the Food and Drug Administration.

At breakfast, fluid milk can be served as a beverage, used on cereal, or used in part for each purpose.

Both lunch and supper must contain a serving of fluid milk as a beverage.

If milk is one of the two components served for a snack, it must be fluid milk as a beverage or used on cereal, or used in part for each purpose. Milk may not be credited for snacks when juice is served as the only other component.

Milk may never be credited when cooked in cereals, puddings, or other foods.

## Milk

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| acidified milk | X | | Acidified milk is a fluid milk produced by souring fluid whole, low-fat, or skim milk with an acidifying agent. Examples of acidified milk include acidified kefir milk and acidified acidophilus milk. | |
| buttermilk | X | | | Buttermilk is low in fat. |
| certified raw milk | | X | Certified raw milk is not pasteurized. Regulations require the use of pasteurized milk. Pasteurized milk is heated at a high temperature for a period of time to destroy microorganisms. | |
| cheese | | X | Cheese cannot be credited toward the milk requirement as it does not meet the definition of milk. To be credited, the milk provided must be fluid. Cheese can be counted toward the meat requirement. | |
| chocolate milk | X | | | It is recommended that the use of flavored milk be limited due to the high sugar content. |
| cocoa | X | | Cocoa made from fluid milk is creditable. Credit the fluid milk portion only. Cocoa made from water is not creditable. | |
| cream | | X | Cream does not meet the definition of milk. | |
| cream sauces | | X | To be credited, milk must be provided as a serving of fluid milk, not cooked in cereals, puddings, cream sauces or other foods. | |
| cream soups | | X | To be credited, the milk must be provided as a serving of fluid milk, not cooked in cereals, puddings, cream sauces or other foods. | |

## Milk

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| cultured milk | X | | Cultured milk is a fluid milk produced by adding selected microorganisms to fluid whole, low-fat, or skim milk under controlled conditions to produce a product with specific flavor and/or consistency. Examples of cultured milk include cultured buttermilk and cultured kefir milk. | |
| custard | | X | To be credited, the milk must be provided as a serving of fluid milk, not cooked in cereals, puddings, cream sauces, or other foods. | |
| eggnog (commercial or homemade) | | X | Eggnog, made with uncooked eggs, is not creditable due to the possibility of contracting salmonella enteritidis, a foodborne illness related to the consumption of uncooked or undercooked eggs. | |
| eggnog flavored milk | X | | | It is recommended that the use of flavored milks be limited due to a high sugar content. |
| evaporated milk | | X | Evaporated milk does not meet the definition of milk. | |
| flavored milk | X | | | It is recommended that the use of flavored milks be limited due to a high sugar content. |
| frozen yogurt | | X | Frozen yogurt does not meet the definition of milk. | |
| goats milk | X | | Goats milk must meet State standards for fluid milk to be creditable. | |
| half and half | | X | Half and half does not meet the definition of milk. | |
| hot chocolate | X | | Hot chocolate made from fluid milk is creditable. Credit the fluid milk portion only. | It is recommended that the use of flavored milks be limited due to a high sugar content. |
| ice cream | | X | To be credited, milk must be provided as fluid milk. | Ice cream contains 11-20% fat. |
| ice milk | | X | To be credited, milk must be provided as fluid milk. | Ice milk contains 2-6% fat. |

## Milk

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| imitation milk | | X | Imitation milk does not meet the definition of milk. | |
| milk and fruit drink | X | X | When milk is combined with a full-strength juice, either the fruit juice or milk may be credited, not both. | |
| lactose reduced milk | X | | Persons who cannot digest lactose found in standard milk may be able to drink lactose reduced milk | |
| low-fat milk (2% or 1%) | X | | The American Academy of Pediatrics and health and nutrition experts do not recommend serving low-fat or nonfat milk to children under 2 years of age. Children under the age of two need additional fat in their diets for normal growth and development. | Whole, low-fat (1% or 2%), and skim milk provide equivalent amounts of the same nutrients. The difference in the milks is the fat content and therefore, the number of calories per serving. |
| milkshakes, commercial | | X | Because it is impossible to determine the amount of fluid milk in a commercial milkshake, commercial milkshakes are not creditable. | |
| milkshakes, homemade | X | | Milkshakes containing the minimum required quantity of fluid milk per serving for the appropriate age group are creditable. Only the fluid milk portion is creditable. | |
| nonfat milk (skim) | X | | The American Academy of Pediatrics and health and nutrition experts do not recommend serving low-fat or nonfat milk to children under 2 years of age. Children under the age of two need additional fat in their diets for normal growth and development. | Skim milk contains less fat than other milk. Skim milk provides equivalent amounts of the same nutrients as whole or low-fat milk. |
| nonfat dry milk, reconstituted | | X | Nonfat dry milk may be used **only** in emergency situations where the availability of milk has been affected. Contact your State agency or sponsor for information. | |
| pudding | | X | To be credited, milk must be provided as a serving of fluid milk, not cooked in cereals, puddings, cream sauces or other foods. | |

## Milk

Serving sizes specified are for children three through five years of age.

| Food Item | Creditable Yes | Creditable No | Comments | Nutrition Information |
|---|---|---|---|---|
| pudding pops | | X | To be credited, milk must be provided as a serving of fluid milk. | |
| sherbet | | X | Sherbet does not meet the definition of milk. | |
| skim milk | X | | The American Academy of Pediatrics and health and nutrition experts do not recommend serving low-fat or nonfat milk to children under 2 years of age. Children under the age of two need additional fat in their diets for normal growth and development. | Skim milk contains less fat than other types of milk. Skim milk provides equivalent amounts of the same nutrients as whole or low-fat milk. |
| sour cream | | X | Sour cream does not meet the definition of milk. | Sour cream is high in fat. A sour cream substitute recipe that is lower in fat is provided in Section 2. |
| soybean milk | | X | Soybean milk is creditable only if used as a substitution because of medical or other dietary needs. A statement signed by a medical authority must be on file for a person being served soy milk. Contact your State agency or sponsor for information. | |
| UHT (ultra-high temperature) milk | X | | UHT milk is Grade A pasteurized milk heated to 280 $^{o}$F, then cooled and packaged. It can be stored without refrigeration until it is opened. | |
| whole milk | X | | | Whole milk contains 3.3% fat. Low-fat (1% or 2%), or skim milk provide equivalent amounts of the same nutrients with less fat. |
| yogurt | | X | Yogurt may **never** be credited in place of fluid milk. It does not meet the definition of milk. Yogurt can be credited as a meat component for snacks. | Yogurt is a good source of calcium, phosphorus and protein. |

## Notes:

# Glossary

**Allergy**: An allergy is a reaction to a foreign substance in which antibodies are produced. Common side effects include runny nose, red eyes and rashes.

**Ascorbic acid**: Ascorbic acid is one of the active forms of Vitamin C.

**Aspartame**: This is the generic name for a non-caloric artificial sweetener that is sold under trade names such as NutraSweet and Equal.

**Bran**: The bran is the fiber rich part of a grain.

**Calorie**: A calorie is the measurement for energy in foods.

**Carbohydrates**: Carbohydrates are compounds composed of single sugars. They provide energy for the body.

**Child and Adult Care Food Program (CACFP)**: The Child and Adult Care Food Program (CACFP) is a USDA program which provides reimbursement and USDA-donated foods to day care centers, family day care homes, Head Start centers, and adult day care centers so that nutritious meals can be provided to participants.

**Child Nutrition (CN) Label**: A CN label states a product's contribution to the meal pattern requirements. CN labels are available for meat/meat alternate and fruit juices that contain greater than 50% real fruit juice. For more information, see the section on **food labeling** in this guide.

**Cholesterol**: Cholesterol is manufactured by the body for a variety of purposes. Cholesterol is found only in animal foods, such as meat and cheese.

**Combination food**: Any single serving of food that contains two or more of the required meal components is considered a combination food. For more information on crediting combination foods, see the sections in this guide on **recipe evaluation** and **food labeling**.

**Complex carbohydrates:** Complex carbohydrates are long chains of sugars arranged as starch or fiber.

**Component**: A food grouped in a certain food category according to the CACFP Meal Pattern. Milk component, meat/meat alternate component, fruit/vegetable component and the bread/bread alternate component are examples.

**Diabetes**: Diabetes is a disorder in which the body is unable to produce or respond to insulin. See the section in this manual on **nutrition** for more information.

**Empty calorie food**: This is a popular term describing foods that have only minimal nutrient value and many calories.

**Emulsifiers**: Emulsifiers are chemicals that attract both fats and oils and help mix fats and oils. Emulsifiers include lecithin (an egg yolk protein), monoglycerides, diglycerides, and propylene glycol esters.

**Endosperm**: The endosperm is the bulk of the edible starchy part of a grain.

**Enrichment**: Enrichment refers to the addition of nutrients to a food. The term may specifically indicate that thiamin, riboflavin, niacin and iron were added to refined grains or bread products.

**Enzymes**: Enzymes are made of proteins and are catalysts for many chemical reactions in the body.

**Fat**: Fat is a storage form of energy. See the sections in this manual on **nutrition,recipe and menu modification** and **food labeling** for more information.

**Fiber**: Fiber is the non-nutrient component of foods that aids in digestion and helps prevent constipation.

**Food and Nutrition Service (FNS)**: The Food and Nutrition Service is the Federal administering agency for the Child and Adult Care Food Program. It is a division of the United States Department of Agriculture. The FNS develops regulations, policies and publications and provides supervision necessary to administer the CACFP.

**Food Buying Guide**: The *Food Buying Guide for Child Nutrition Programs* is the principle tool used to determine the contribution foods make toward the meal pattern requirements. The guide gives average yield information for over 600 creditable food items. The Food Buying Guide is most helpful to schools and some child care centers that prepare meals for a large number of children since the food yield data is given primarily for quantities of 100 servings.

**Food poisoning**: Food poisoning is the illness transmitted to humans through a poisonous substance in food.

**Fortification**: Fortification refers to the addition of nutrients to a food, often not originally present, and/or added in amounts greater than might be found there naturally.

**Germ**: The germ is the nutrient-rich inner part of a grain.

**Glucose**: Glucose is a single sugar used in both plants and animals as a quick energy source. Glucose is known as blood sugar.

**High-density-lipoprotein (HDL)**: HDLs return cholesterol from storage places to the liver for dismantling and disposal.

**Home canned foods**: For safety, home canned foods are not allowed in meals reimbursed under the CACFP. The dangerous organism, *Clostridium botulinum*, that produces the deadly botulinum toxin can grow in home canned foods. An amount of the botulinum toxin as tiny as a single crystal of salt has the potential to kill several people within an hour, and survivors can still suffer the effects months or even years later. Even when there is no evidence of spoilage, the toxin may be present.

**Imitation**: Imitation foods are processed foods that resemble ordinary foods, but are lower in essential nutrient(s), including protein.

**Infant cereal**: Infant cereal is cereal specially formulated for and generally recognized as cereal for infants. It is routinely mixed with formula or milk before served to infants.

**Infant formula**: Iron fortified infant formula is intended for dietary use as a sole source of food for normal, healthy infants. It is served in a liquid state at the manufacturer's recommended dilution.

**Insulin**: Insulin is a hormone secreted by the pancreas in response to high blood glucose levels; it assists cells in drawing glucose from the blood.

**Lactase**: Lactase is an enzyme that splits lactose into digestible parts.

**Lactose**: Lactose is a disaccharide composed of glucose and galactose. Lactose is known as "milk sugar."

**Lactose intolerance** - Lactose intolerance is the inability to digest lactose, due to a lack of the enzyme, lactase.

**Leavening agents**: Leavening agents are added to bread and grain products to make them light in texture and full in volume. Examples include yeast and baking powder.

**Legumes**: Legumes are plants of the bean and pea family that are rich in protein and fiber.

**Lipid**: Lipids are the family of compounds that include triglycerides (fats and oils), phospholipids and sterols.

**Lipoprotein**: Lipoprotein are clusters of lipids that serve as transport vehicles for lipids in the blood and lymph.

**Low-density-lipoprotein (LDL)**: LDLs transport lipids from the liver to other tissues (fat and muscle).

**Monosaccharide**: A monosaccharide is a single unit of sugar.

**Nutrients**: Nutrients are components of food that help nourish the body. They include carbohydrates, fats, proteins, vitamins, minerals, and water.

**Obesity:** Obesity is overfatness identified by a skinfold measurement. Obesity is usually defined as weight 35% or more above the appropriate weight for height.

**Oils**: Oils are lipids that are liquid at room temperature. Oils are unsaturated fats.

**Osteoporosis**: Osteoporosis is known as "adult bone loss." It is a disease in which bones become porous and brittle.

**Overweight**: Overweight is usually defined as body weight 20% or more above the appropriate weight for height.

**Pasteurization**: Pasteurization is the treatment of milk with heat, sufficient to kill certain disease-causing microbes.

**Product specification sheet** (sometimes called a product analysis sheet): This is a product information sheet obtained from the manufacturer detailing the ingredients by weight or by percentage weight of the product. It must have an original signature of a company official. For more information on product specification sheets and crediting commercially prepared combination foods, see the section on **food labeling**.

**Proteins**: Proteins are energy yielding nutrients made of amino acids.

**Recommended Dietary Allowance (RDA)**: RDAs are the nutrient intakes suggested by the Food and Nutrition Board (FNB) of the National Academy of Sciences/National Research Council for the maintenance of health in people in the U.S.

**Refined grains**: Refined grains have the coarse parts of the kernel removed. They are often enriched.

**Roughage**: Roughage is the rough part of foods that are indigestible. It aids in digestion and preventing constipation.

**Serving size or portion**: The portion size is described by the weight, measure or number of pieces or slices. The serving size specified in the meal patterns must be provided to meet the meal pattern requirements.

**Standards of identity**: Standards of Identity are U.S. government standards for content, preparation, and labeling of food before it is manufactured and sold in commerce. Standards of Identity specify ingredients a food must contain when a product is to be labeled or identified by a common product name. Standards for meat and poultry products are developed by the Department of Agriculture. For other food products, standards are set by the U.S. Food and Drug Administration (FDA).

**Starch**: Starch is a plant polysaccharide composed of glucose. Starch is found in breads, potatoes, and pasta products.

**Tofu**: Tofu is a curd made from soybeans, rich in protein and calcium. Tofu is used in many Asian and vegetarian dishes in place of meat.

**Vegetable Protein Products** (VPP): Vegetable protein products are food components which may be used to substitute, in part, for meat, poultry, or seafood in some cases. Contact your State Agency or sponsor for more information.

**Very-low-density-lipoprotein** (VLDL): VLDLs are made in the intestine and liver and transport lipids to other body organs.

**Whole grain flours and cereals:** Products made from whole grains containing the bran, germ and endosperm of the whole kernel of grain.



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# Reader Response

We hope that you have found ***What's in a Meal?*** to be a useful resource for planning quality, nutritious meals and menus which comply with the Child and Adult Care Food Program (CACFP) meal pattern requirements. Please take a few minutes to answer the following questions about this publication. Your answers and comments will help us in future technical assistance efforts.

After completing the questionnaire, please fold it, seal it with tape and mail. No postage is necessary if mailed in the United States. THANK YOU!

1. **Job Title:** _____ [1]

2. **How is this resource being utilized by your organization? Check all that apply.**

_____ training providers or food service staff [2]
_____ parent education [3]
_____ enhancing day care activities [4]
_____ menu planning and food purchasing [5]
_____ marketing the food service program [6]
_____ to achieve personal nutrition goals [7]

Other:_____ [8]

3. **Please rate the following. Indicate the frequency with which you currently follow the principles below and indicate whether *What's in a Meal?* helped improve your performance in each area.**

| Always | | | | Never | | Did this resource help? | |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | I serve meals that follow the Dietary Guidelines. [9/20] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I serve plenty of vegetables, fruits and grain products. [10/21] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I modify menus and recipes to reduce fat. [11/22] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I modify menus and recipes to reduce sugar. [12/23] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I modify menus and recipes to reduce sodium. [ 3/24] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I read labels on food items in the grocery store. [14/25] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I incorporate ethnic foods into my menus. [15/26] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I understand how to evaluate my own recipes for crediting. [16/27] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I have made changes to improve sanitation in the kitchen. [17/28] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I follow infant feeding procedures. [18/29] | yes | no |
| 1 | 2 | 3 | 4 | 5 | I apply crediting rules and policy. [19/30] | yes | no |

4. **How has this resource affected the quality of your food service operation?** [31]

5. **What other kinds of meal planning or nutrition education materials would be useful to you in your operation of the CACFP? Please be specific - (i.e. seasonal cycle menu planning, children's educational videos on nutrition, etc).** [32]

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